THE ATTITUDES, INSIGHT, AND PLANNING OF STUDENTS AND EXPERIENCED TEACHERS IN WORKING WITH GIFTED INTERMEDIATE GRADE PUPILS

By

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CHAPTER I

INTRODUCTION

Research in teaching, particularly that centered on the question of teacher effectiveness, has included investigations into

1. The teacher's attitudes toward his students and
2. The teacher's understandings of his students and their needs, and
3. The teacher's views of the appropriate action to take in the educational situation in which the students are placed.

Investigations into the education of gifted children have contributed to the literature on the effect of the attitudes of teachers, their values, and their knowledge concerning the development and learning of children. There is some indication from these studies that there are priorities in the education of teachers for the gifted which, if met, will insure more opportunities for these children in the school situations in which they are placed.

Many programs for the gifted have been established in the United States. Some have flourished while others have failed. Failures have been attributed to lack of insight into the needs of the gifted, lack of training in appropriate teaching procedures, and lack of community or teacher acceptance. An often heard complaint is the lack of understanding on the part of the regular classroom teacher both as to the needs of the gifted and as to the special programs organized for his development. Many teachers appear threatened by children who know more than they do, and by the programs which claim to do more for this particular child than they can. Such teachers tend to adopt unfavorable attitudes toward the gifted as a means of self-defense. Those gifted children and their families, and those active in this field with whom the writer has had contact, support Laycock's view (1957, p. 3) that unfavorable attitudes have been a major problem in providing for the gifted.

Much of the literature on the education of the gifted reports a preference of the teacher for the gifted. The gifted are sometimes considered as one group with similar characteristics. Gallagher (1964) has shown that attitudes of the gifted toward themselves and others and toward educational achievement are varied. Recent studies have found that a large proportion of teachers do not prefer to teach the gifted essentially because of a feeling of inadequacy for such work (Sister Josephine 1961, and Cornish 1964).

Educators do not agree on the best method of helping the gifted develop to their highest levels as human beings. In many cases the disagreement is due to the different life aspect chosen for focusing. Despite the differences among educators in general, those who are devoting their major work to this field have agreed upon some basic assumptions:

1. The school should help develop the gifted child's intellectual abilities as well as his social ones.
2. The gifted child learns in a way different from the average and the retarded (Gallagher and Lucito 1961) so requires different teaching methods.

3. Early identification is important (Hildreth 1966, p. 147).

4. The average teacher, unaided, cannot provide adequately for the gifted child (Gallagher 1964, p. 80).

Today many persons feel that civilization is being threatened with an annihilation of many values, especially that of intellectual achievement. The gifted are often made to feel guilty for possessing ability. Many are penalized for using it. Adolescents exhibit negative attitudes toward brilliance and high academic achievement (Tannenbaum 1962, p. 68).

Throughout history there has been a negative attitude toward the gifted. Society has usually looked upon geniuses with suspicion and envy. No civilization has ever used more than a small per cent of the abilities of its gifted. During various periods in history, society has rewarded high achievement in a specific field (e.g., European musicians in the nineteenth century) proving that talent exists, if society wishes to reward it. Even in the United States, the gifted have been considered eccentric and unstable until very recently. Since Sputnik, intelligence has become slightly more respectable, but envy continues to influence many, as they point out the gifted child's faults and maintain that high intelligence is undesirable. A number of gifted children assume the role which is forced upon them, feeling inferior and unaccepted (Martinson 1961).

Observations of many classes which were known for their superior educational quality, revealed little stimulation of the higher mental operations, as defined by Guilford (1959), and uneven understanding of the principles of creativity as suggested by Torrance (1962). Most teachers are familiar with the generalities which some complain are all that are offered to the teacher today. Application of these new principles is far less frequently understood. With little preparation in these areas, misconceptions are to be expected. There is great need for improved education for teachers of the gifted. Such improvement should be based upon research which identifies these misconceptions.

Statement of the Problem

The writer, whose experience with gifted children has included teaching gifted children ages eight through twelve in a special school situation planned to provide depth in their education, has formulated several questions concerning the insights, attitudes, and planning of teachers about the gifted. Answers to these questions may provide the basis for new approaches to the education of teachers for these children. This research study was conceived in an attempt to find some answers to these questions. The questions are stated as follows:

1. Do the attitudes of teachers and college students toward gifted children vary according to type of child?
2. Does the insight that teachers and college students have into the needs of gifted children differ according to type of child?
3. Does the planning ability of teachers and college students for gifted children vary according to type of child?
4. Are answers to the three above questions influenced by membership in these groups:
    a) Undergraduate students in an education course

b) Full-time graduate students taking an education course,

c) Full-time teachers who have taken graduate work in education or psychology during the past three years, and

d) Full-time teachers who have been enrolled in no graduate education or psychology course during the three-year period?

Limitations of the Study

1. This study does not attempt to make a discrete categorization of types of giftedness. The purpose is, rather, to discover whether or not differences do exist, and to generate future research if it is indicated.

2. The study is not intended to measure insight into and planning for the gifted in their widest meanings, but only to measure insight and planning for the prototypes in the study.

3. The investigation of teacher opinion was restricted to personnel of six elementary schools in the suburban areas of Daytona Beach, Holly Hill, and DeLand, Florida, and to groups of students enrolled at the University of Florida during the academic year 1966-1967.

Definitions of Terms

Gifted: A child who has 130 IQ or above on two or more intelligence tests.

Insight: An intellectual and empathic understanding of the child's needs.

Needs: Emotional and intellectual needs which influence the child's development and school performance.

Creativity: "The emergence in action of a novel relational product growing out of the uniqueness of the individual on the one hand, and the materials, events, people, or circumstances of his life, on the other." (Rogers 1961, p. 350)

CHAPTER II

LITERATURE IN THE FIELD

Interest in the education of the gifted was heightened by the Russian success in putting Sputnik into orbit in 1957. Educators and the public began to question the adequacy of present schooling for the gifted. The writer has made a search of the literature to determine the status of educational provisions for the gifted and attitudes and understandings about them.

Freehill (1961, p. 28) lists several attitudinal problems in the education of the gifted. He speaks of the confused view of the role of the gifted in society. He suggests that intelligence is often a liability both in politics and in community life, and that the intellectual is often distrusted. He also speaks of a negative stereotype of the gifted, which is emphasized in books, films, and conversation. Another problem is that of equalitarianism. Smith (1958) claims that demands for equal treatment for all are major impediments to providing for the gifted. Conflicting views concerning education present other problems. Laycock (1957, p. 3) states that a major obstacle in the way of achieving improvement in educational provision for the gifted is the public's misunderstanding of the problem of individual differences.

Studies have been conducted in recent years on the attitudes of administrators, teachers, and students toward the special educational provisions for the gifted. Hamilton (1958) surveyed reactions to the Portland program for gifted children. His studies included over 2,000 subjects. He found that parents, teachers, and children had opinions of the gifted varying from only positive to mainly negative characteristics. Those questioned were almost unanimous in their approval of special programs for the gifted. He found that opinions of teachers were related to the amount of experience, to their involvement in local programs, to their attitudes toward gifted children, and to their attitudes toward the role of children in the classroom. No signigicant relationship was found between opinions and the amount of college training, sex, grade level taught, or subjects taught. He concluded that sound edcational programs need not be in conflict with public attitude and opinion.

College professors in various fields, secondary principals and teachers, and community leaders were questioned concerning their attitudes toward the education of the gifted (Smith 1959). The majority of subjects preferred the establishment of segregated classes in all subjects, with rigorous training in hard core subjects for all gifted students. Teachers favored educational patterns which were traditional and would simplify classroom management. Counselors favored educational plans which provided time in the program for more attention to individual pupils. Administrators were divided between these points of view. Little difference was found between lay and professional views on educational programs. The largest difference in views was found between education and noneducation professors. The noneducation professors favored academic and traditional educational programs, while the education professors favored those which were less fettered. The large majority of all respondents favored special consideration for the education of the gifted.

Studies of teachers' acceptance or rejection of the gifted as people have been inconclusive. Abraham (1959) found that teachers tended to reject the gifted. The reaction of teachers toward the gifted varied widely from implied acceptance to hostility as reported in Martinson's study (1961). When Sister Josephine (1961, p. 42) asked teachers how they felt about teaching gifted students, 21 per cent said they would not want to teach them, because the gifted were over-confident, and 23 per cent said they felt unprepared for such teaching.

A study was made of staff attitudes toward a special program for the gifted (Manchester and Silverberg 1963). Teachers, both in and out of the program, were asked about their reactions to the program; to ability grouping; to the effect of it on teaching, on teacher morale, and on motivation; and to the areas of instruction which should be included in the program. The counselors queried were not favorable to the program, and the principals were even less favorable than the teachers. Teachers who were not in the program were vague in reporting their opinions about its effectiveness. Their communications to the principals on its worth were more negative than the opinions which they gave in response to the items on the questionnaire used in the study.

Getzels and Jackson (1962, p. 117) made a study of the attitudes of parents and teachers toward gifted children, both those who had extremely high IQ's and those who had extremely high scores on creativity tests. The parents and teachers were asked to define the traits of a gifted child. Both groups emphasized IQ, creativity, and goal directiveness. When teachers were asked to rank the traits in children whom they liked to have in their classes, the traits favored were similar to the traits which they had mentioned in defining giftedness. However, when the parents were asked to rank children's traits on the degree to which they would like to have them as members of their families, there was no resemblance to their choice of traits of giftedness. The parents wanted children who were emotionally stable, who had good moral character, and who got along well with others. Parents did not prefer the children whom they had defined as gifted. The study also revealed that parents and teachers do not believe that the qualities which they define as necessary to giftedness are the same ones which they believe are necessary for success in life. Teachers favored children in their classes who had high IQ's over those who were highly creative (Ibid., p. 31). Getzel's and Jackson's study reveals attitudes toward the gifted, of teachers and parents, which appear to be due to lack of understanding and indecision concerning goals and values for children.

Weiner and O'Shea (1963, p. 163) investigated the attitudes of university faculty, administrators, teachers, and university students toward the gifted. The purpose of the study was to identify the attitudes of these groups toward the gifted, and to note the relationship between their attitudes and selected variables. Their study included about 1,500 subjects from six states. They found that the university faculty members were less favorable than administrators and supervisory personnel. The teachers and students were the least favorable of all. These statements refer to the mean of each group, as there was a wide range in all groups. Among administrators males were more favorable than females; those with doctor's degrees were more favorable than those holding bachelor's degrees or master's degrees. Those who had gifted classes in their schools were more favorable than those without. Among teachers, those with master's degrees were more favorable than those with bachelor's degrees; and those who taught in gifted programs were more favorable than those who did not. Among students, females were more favorable than males, and seniors were more favorable than sophomores, juniors or graduate students. Those who had heard lectures on the gifted were more favorable than those who had not.

In a survey of administrators in school districts which enrolled 80 per cent of the pupils in Kansas, Cornish (1964, p. 117) concluded that the administrators' lack of feeling of responsibility for the best education for the gifted produces much negative influence about this matter in the nation's schools. He found that many administrators believe that the gifted need no special attention. A large percentage of the administrators reported that the gifted followed the same program other children did, even though they achieved at a rate well above the so-called normal student. What was most indicative of a negative attitude toward special provision for the gifted, was the position of more than a third of the administrators who had no desire to initiate special programs, even if funds were provided. Cornish saw a need to educate the educators. Only 78 of 563 administrators had provided in-service education in the study of the gifted, and almost half of them were unaware that state aid was available for educating the gifted.

A Thurstone-type attitude scale was used in Schey's study (1965) of attitudes toward bright pupils from parochial schools. Over 2,000 parents and 448 teachers were questioned. The mean scores for all groups represented a favorable attitude toward the bright pupil. Among teachers, the differentiating factors were found to be age, grade taught currently, teaching experience at different grade levels, the amount of teaching experience, and the socio-economic status of the school. Teachers responded more favorably than either mothers or fathers.

A survey of elementary teachers' beliefs and practices related to creativity was made by Wolf (1964, p. 384). He inquired concerning the meaning of creativity, reasons for use of creative learning experiences in the teachers' classrooms, and the desired outcomes of these experiences. Almost half of the teachers had a conception of creativity as a personal characteristic, while two-thirds provided creative experience in order to expedite specific learning. This study also shows a need for clearer understanding on the part of teachers.

Warren and Turner (1966) studied the attitudes of professionals and students toward children of various exceptionalities and asked the subjects to rate them from one to seven, according to type of pupil with whom they preferred to work. This study involved 403 subjects and supplied them with a list of definitions. The results showed that, of the exceptionalities, the academically talented were the best known, the most preferred, and they were believed to have been given the most educational opportunities.

Another study (Kingsley 1967) also measured attitudes toward exceptional children. Kingsley first found that the secondary education major preferred to work with the gifted child and the elementary education major preferred the emotionally-socially disturbed child. However, on a second ranking, these findings were interchanged. The subjects thought that teachers of the gifted needed special training and gifted pupils a special curriculum. They believed that special class was needed by the gifted less than by any exceptionality except the severely retarded.

In general, past research shows a relationship between favorable attitude toward the gifted and knowledge of these children, either through education or through experience. The research completed thus far does not differentiate between the types of gifted students, with the exception of the Getzels and Jackson study. Here differentiation was made on the broad grounds of extremely high IQ and extremely high creativity. It also included a study of highly moral and highly adjusted children, whom teachers considered equally desirable as students. Almost half of each group was intellectually gifted. There is need for a study of attitudes toward the different types of gifted children. Research of this kind may also resolve what appears to be conflicts in information from previous studies.

No research has been found in which the teacher's insight into a gifted pupil's needs or his application of general principles in teaching the gifted has been investigated. Investigations into the teaching of specific types of gifted children have been few.

CHAPTER III

DESIGN OF STUDY

The Instrument

The instrument used to gather data was designed for this study, and was administered to certain teachers and students in education courses in Florida. This instrument attempted to measure the attitudes, insight, and planning of the respondents concerning ten different types of gifted children in the intermediate grades. These were:

1. The unchallenged conforming achiever
2. The nonconforming underachiever who rejects his ability for peer and family acceptance
3. The withdrawn underachiever with musical ability
4. The aggressive unchallenged achiever with dramatic talent
5. The uneven achiever with unchanneled energy and scientific creativity
6. The conforming underachiever with creative writing ability
7. The advanced reader with misdirected ability and uneven mental development
8. The creative achiever who has social problems and artistic talent
9. An unchallenged conforming achiever with mathematical ability
10. The unchallenged conforming achiever with unchanneled creative ability, and capabilities in the social studies

These are not all of the types of gifted children found in the schools, or even the most prevalent. There are many types of gifted children but from a review of the literature and from the writer's professional experience, these types are judged to be frequently found. The respondents were asked to express an attitude, an understanding of need, and a plan of action for each of these ten prototypes. Five choices of expression were provided in each case.

Selection of Items

The questionnaire used to gather data in this study is included in Appendix A. The questionnaire items were selected in part from the results of a pilot study made in July 1966. Thirty graduate students at the University of Florida were given descriptions of the ten children, and asked to complete sentences describing the children, reporting their reactions to them, identifying their problems, and suggesting appropriate action. The replies were general, so the researcher changed the form of the questions to a multiple choice. The original replies were an excellent source of items for the new instrument. Items were also selected from a form completed by five graduate students, from a study of the literature, and also from the researcher's professional contact with gifted students. A list of 160 attitudinal items from all these sources was given to sixteen graduate students to rate as to the probable attitude of a teacher using these words to describe a child. The ratings were favorable, unfavorable, and neutral. Nine favorable terms were agreed upon by all. There was no perfect agreement on the unfavorable or neutral terms. The investigator chose terms appropriate for each child from those which had the highest agreement by the graduate students. In the favorable category, the terms included had been agreed upon by thirteen or more students, and in the unfavorable category, by twelve or more. The neutral category included items which had been agreed upon by ten or more students.

Each set of five choices of description included two choices which indicated a favorable attitude, two choices which indicated an unfavorable attitude, and one choice which indicated a neutral attitude toward the gifted child described. These choices were determined by the pilot studies described.

Each set of five choices of major need or problem contained one answer which was correct; one which was vague, referring to a problem which may have been important, but which was not basic; and the set contained three incorrect answers. These choices were found in the literature.

Each set of five choices of approach to the problem or plan of action included two answers well accepted by authorities in the field, two answers considered harmful to the child described, and one which would neither hurt nor help the child.

No divisions, other than the favorable, neutral, and unfavorable aspects described, were made of attitude items. However, both insight and planning items were further divided.

The researcher assigned each questionnaire item on insight to one of the following categories:

1.	Child's fault	(F)
2.	Intellectual need	(I)
3.	Emotional need	(E)
4.	Practicalism	(P)
5.	Nonconcern	(NC)
6.	Interpersonal relations	(IR)

The items which were included in the child's fault category, and example of which is the word lazy, may have been due to emotional need, but the emphasis in the response was on blame rather than on emotional need. (Insight and planning items are categorized in Appendix D.)

Each item on planning was assigned to one of several categories:

1.	Intellectual development	(ID)
2.	Practicalism	(P)
3.	Interpersonal relations	(IR)
4.	Authoritarian control	(A)
5.	Self-concept	(SC)
6.	Nonconcern	(NC)
7.	Balanced development	(Bal)

Population Sample

The major portion of the population for the study came from the University of Florida student body. Respondents formed the following groups: undergraduates in an education course; full-time graduate students taking a graduate course in education; full-time teachers who had taken a graduate course in education or psychology during the past three years; and full-time teachers who had been enrolled in no graduate education or psychology courses within this period.

The six elementary schools involved in the investigation, all in Volusia County, Florida, were ones whose principals had volunteered participation, in response to an appeal by the East Volusia supervisor, Mrs. Lucy Every. Four schools were situated in Daytona Beach, one in Holly Hill, and one in Deland. The six-school population ranged in socio-economics levels from lower class to upper-middle class. The graduate and undergraduate students were those taking a graduate or an undergraduate education course from the University of Florida in the fall of 1966. Table 1 shows the number of respondents in each group.

TABLE 1

NUMBER OF RESPONDENTS IN EACH OF THE FOUR GROUPS

Respondent Group	Number of Participants
Undergraduate Students	62
Graduate Students	55
Teachers Taking Courses	35
Teachers Taking No Course	62

Administering the Instrument

The investigator visited each of the classes and schools involved in the study to administer the instrument. The same directions were given to each group, and each had the investigator present and available for questions about the directions, while working on the instrument. Questionnaires were collected when all respondents appeared to be finished. In all, questionnaires were completed by 117 students and 99 teachers.

Scoring the Questionnaire

From each respondent three category scores, attitude, insight, and planning, were obtained for each of the ten prototypes. Information on the basis-for-scoring responses from students and teachers is scheduled in Appendix B. Table 2 gives the scoring for each of these categories.

TABLE 2

SCORES FOR THREE TYPES OF ANSWERS FOR EACH OF THE THREE QUESTIONNAIRE CATEGORIES

Questionnaire Category	Type of Answer	Score	Number of items
Attitude	Favorable	2	20
Attitude	Neutral	1	10
Attitude	Unfavorable	0	20
Insight	Correct	2	10
Insight	Vague	1	10
Insight	Incorrect	0	30
Planning	Helping	2	20
Planning	Neutral	1	10
Planning	Harming	0	20

These data were analyzed at the University of Florida Computing Center. Means of category scores for each child and for each were computed.

Coefficients of correlation for attitude, insight, and planning scores for each child were determined in a thirty-by-thirty correlation matrix. There was also a nineteen-by-nineteen correlation matrix of total scores, considering each child, each category, general total, year of graduation, years of teaching, number of courses taken, and number of gifted children known. A two-way analysis of variance design was used to determine the significance of different types of children and different backgrounds of teachers on the teachers' insight, and planning for gifted children, and of the child prototypes and teacher background interaction. The ten types of children, and the four different background groups were considered for each of the three categories.

Throughout the study only confidence levels of .05 or .01 were accepted. The correlation coefficients were so numerous that the .01 level was set as the lower limit of significance.

Anticipated Results

In establishing the research design and in delineating the problem, the researcher anticipated certain answers:

1. It was expected that attitudes would be the most favorable toward gifted children who subordinated most needs to that of gaining their teachers' acceptance, and that those who interfered with classroom procedures would be the most rejected. According to this theory, Mary and Paul would be most accepted, and Howard and Tom would be most rejected.

2. The investigator anticipated little understanding of the deviation-based needs of the gifted. Better understanding was expected

of children whose needs more closely resembled those of the average child, i.e., where the need took the form of self-discipline and emotional control. Tom would be an example of this type.

3. Planning was expected to excel for those children whose needs were closest to those of average children. It was thought that teachers tend to find solutions in planning for those who interfere with their routine. The children who did not interfere would tend to receive far less individualized instruction. This would indicate that the best planning would be for Howard and the poorest for Mary and Paul.

4. The researcher chose the four groups of respondents to compare the effects of education and experience on responses in the three problem categories. Undergraduate and graduate students without teaching experience provide two levels of education, and in most cases two levels of maturity. The teachers without courses in the past three years, represented experience; and teachers taking graduate courses in this period represented the combination of experience and advanced education. This combination was expected to produce the highest scores, and inexperienced graduate students were expected to be second. It was thought that the other groups would be fairly close, with experience helping most often, but recent education giving an advantage in some instances. In general, the undergraduate students, immature, inexperienced, and with the least education were expected to be the lowest in score level.

CHAPTER IV

THE INFLUENCE OF TYPE OF GIFTEDNESS

Two major factors were studied, the influence of type of giftedness on attitude, insight, and planning of pre-service and in-service teachers for the gifted, and the influence of differences in education and experience of the respondents in these three areas. The first of these influences is considered in this chapter.

Attitudes Toward the Gifted

The first question which the study was designed to answer was "Do attitudes of college students and teachers toward gifted children vary according to type of child?"

Figure 1 gives the mean results of all respondents' attitudes toward each type of child. The means have been placed on the rejection-acceptance continuum. The symbols used in the figure indicate the child characteristics as follows:

A - Achiever
C - Conformer
Lo - Low creative
W - Withdrawn
UA - Underachiever
NC - Nonconformer
Hi - High creative
Ag - Aggressive

This categorization of the ten prototypes is given in Appendix D. It is apparent that a wide variation of acceptance of these children by the respondents existed. Paul and Mary, the conforming achievers, had the greatest degree of acceptance. Tom and Howard, the nonconforming underachievers, were almost completely rejected. They were separated

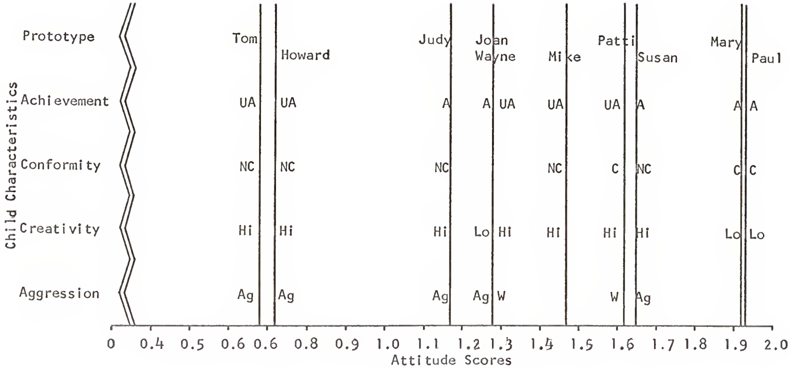

Fig. 1. Attitude continuum: Mean scores of all respondents on attitude toward the ten gifted child type.

from the other children in degree of rejection, by a larger mean score difference, .45, than any other separations between any two children. The next greatest difference was .27, between Mary and Susan. In addition to Tom and Howard, the only underachieving nonconformer who was also highly creative was Mike, who had a fairly high acceptance. The only low creative achieving type who did not receive a high attitude score was Wayne.

These variations in attitude toward the ten types of children had an F ratio of 82.866, which was significant at the .01 level of confidence. This is shown in Table 13, an analysis of variance summary table, found in Appendix E.

Popular items.--The largest number of items checked for attitude, was for favorable descriptions. Questionnaire answers are given in Appendix A. The only ones not favorable which were first or second in number of choices, were undisciplined (unfavorable) for Tom, studious loner for Mike (neutral) and lazy, an unfavorable term for Howard. The most agreement in attitude was found in the choice of conscientious for Mary, genius for Paul, the undisciplined for Tom, and sensitive for Patti.

Attitudes toward categories.--The majority of respondents received higher scores for attitude toward gifted pupils with the traits of conformity, low creativity, achievement, withdrawal, and in that order. The conforming student, with a mean score of 1.82, was a definite high. The child with aggressive, nonconforming, or underachieving traits received the lowest attitude scores from the respondents. These mean scores can be seen in Table 3.

TABLE 3

RANK ORDER AND MEANS OF ATTITUDES OF RESPONDENTS TOWARD TYPES OF GIFTED PUPILS

Category	N	Mean Rank Order	Mean Score
Conformer	3	2.3	1.82
Low Creative	3	3.3	1.71
Achiever	5	4.4	1.59
Withdrawn	2	5.0	1.45
High Creative	7	6.4	1.23
Underachiever	5	6.8	1.15
Nonconformer	5	7.0	1.14
Aggressive	5	7.4	1.10

The first question posed, "Do the attitudes of teachers and college students toward gifted children vary according to type of child?" is answered in the affirmative.

Variance of Insight

The second question for which the study sought an answer was, "Does the insight which college students and teachers have into gifted pupils' problems vary according to type of child?" The insight continuum is shown in Figure 2. This figure shows mean scores of all teacher and student respondents on insight into each child's problems and is based upon their answers to the second question under each child

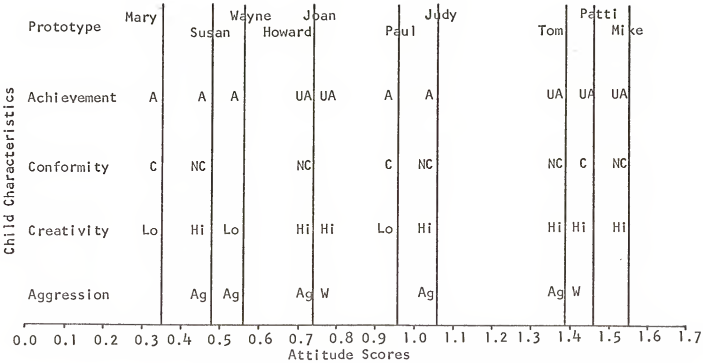

Fig. 2. Insight continuum: Mean scores of all respondents on insight into the ten gifted child types.

type. Although the possible range of scores is the same as for attitude, 0-2, the chance for a respondent to obtain as high a score is less. This is because the respondent was offered only one chance to score two, and three chances to score zero. This is opposed to two chances to score two on attitude, and two chances to score zero. It is to be expected that insight scores will be lower than attitude scores.

Mary and Susan, who ranked second and third on attitude favorableness, ranked tenth and ninth respectively, on insight into their behaviors, by respondents. Mary's score of 0.35 and Susan's score of 0.48 are exceedingly low and present striking contrasts to their acceptability scores of 1.92 and 1.65. Mike, Patti, and Tom received the three highest scores on insight. Mike's mean score was close to his attitude score, but his rank order of first on insight contrasts with his rank order of fifth on attitude. Patti with second place score on insight is close to her fourth place score on attitude. Tom, with his third place score on insight, is far from his tenth place score on attitude. This difference from one child to another on insight scores was significant at the .01 level with an F ratio of 64.829, as can be seen in Table 14, in Appendix E, an analysis of variance table using insight as the criterion.

Insight into categories.--Table 4 shows that the respondents had the highest insight scores into the underachiever, with a mean score of 1.18. The next three highest scores were close, the withdrawn, the high creative, and the nonconformer. The lowest insight scores were for the low creative and for the achiever.

TABLE 4

RANK ORDER AND MEANS OF INSIGHT OF RESPONDENTS TOWARD TYPES OF GIFTED PUPILS

Type of Pupil	N	Mean Rank	Mean Score
Underachiever	5	3.8	1.18
Withdrawn	2	4.0	1.10
High Creative	7	4.6	1.06
Nonconformer	5	4.8	1.04
Conformer	3	5.7	0.92
Aggressive	5	6.2	0.85
Achiever	5	7.2	0.68
Low Creative	3	7.7	0.62

Popular item choices.--Respondents selected items which represented intellectual developmental needs as the major need of these ten prototypes. Only 24 per cent of the questionnaire items were focused on intellectual development, but 38 per cent of the respondents selected these items. (See Table 7 in Chapter V.) This is a 58 per cent increase above that expected from the distribution. However, the scoring ideal required 70 per cent. This means they chose these items only 54 per cent as often as they should have in order to score correctly. The items which represented emotional need were chosen by the respondents in approximately the same proportion as both frequency and scoring ideal.

The results show that practical reasons were selected 40 per cent less often than would be expected by chance and child's fault was chosen 30 per cent less often, but both of these choices gave incorrect scores. The largest number of incorrect answers were among items which placed the blame on the child. Intellectual development was second largest in number of incorrect answers and no recognition of a problem was third. Emotional needs which were wrong or neutral were next high in incorrect answers. Twice as many correct identifications were made in intellectual needs as incorrect choices. These results are shown in Table 15, Appendix E.

Insight of students and teachers into gifted children does vary according to type of child. The answer to the second question is in the affirmative.

Variance of Planning

The third question for which an answer was sought was, "Does the ability that college students and teachers have to plan for gifted pupils tend to vary according to type of child?"

A third comparison of the respondents' reactions to the ten types of gifted children is shown in Figure 3, using planning as the criterion. Mean scores of all respondents were placed on a continuum. There is a difference in scoring from the first two criteria, attitude, and insight, which is due to the scale used in the questionnaire. The question on planning required two responses for each child. Therefore, the planning scores are higher than those for attitude or insight. However, the scores cannot be considered in a two-to-one ratio, because

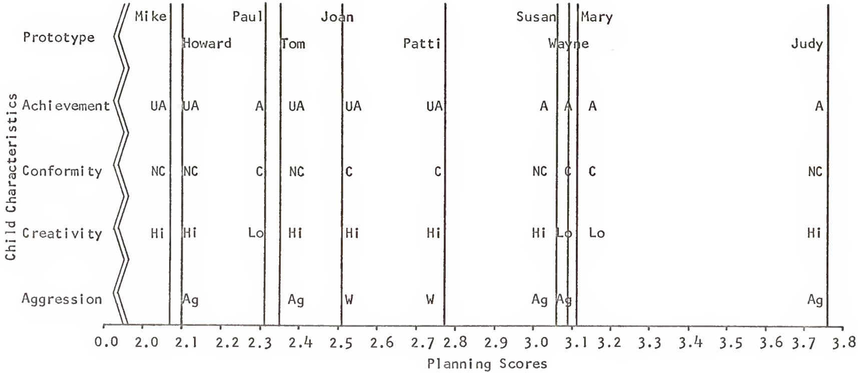

Fig. 3. Planning continuum: Mean scores of all respondents on planning for ten types of gifted children.

the probability of choosing a second two-point answer was less than the probability of choosing a first two-point answer.

Greatest and least planning ability.--An examination of Figure 3 reveals the largest difference in scores in favor of Judy, the creative nonconforming achiever. Judy had a high score of 3.76, very close to a perfect score. This is .65 above the next highest score, for Mary. Wayne and Susan then followed closely. These four high ranked types all represent the unchallenged achiever. Mike, with his uneven achievement, and Howard, the underachiever who denies his ability, were lowest and second low in receiving appropriate planning. Howard scored low on all three factors, but Mike scored highest when insight was the criterion. The only achiever who did not score high on planning was Paul. These scores are given in Tables 26 through 35, in Appendix E.

Planning for categories.--Table 5 gives the mean scores and rank orders for planning for different types of gifted children. The achiever and the aggressive student ranked highest in appropriate planning scores by the respondents. The underachiever, the withdrawn, and the high creative ranked lowest in receiving appropriate planning choices.

Popular item choices.--Although interpersonal relations comprised 16 per cent of the planning items, it was chosen 24 per cent of the time, but this was less than the scoring ideal of 30 per cent. The choices involving no concern were almost completely avoided. The intellectual development was chosen the most frequently, but still less

TABLE 5

TOTAL RANK ORDER AND SCORE MEANS OF PLANNING OF RESPONDENTS FOR TYPES OF GIFTED PUPILS

Category	N	Mean Rank Order	Mean Score
Achiever	5	3.8	3.01
Aggressive	5	5.0	2.77
Conformer	3	4.7	2.73
Low Creative	3	5.0	2.67
Nonconformer	5	6.0	2.67
High Creative	7	5.7	2.66
Withdrawn	2	6.0	2.64
Underachiever	5	7.2	2.38

than the scoring ideal. The goals of practicalism and authoritative control were chosen 20 per cent of the time, instead of the 5 per cent set by the ideal score. These percents for the total group are included in Table 7.

Planning scores of all respondents varied significantly according to type of gifted pupil. Table 16, Appendix E, gives the F ratio of variance of scores on planning according to type of child as 81.583, which is significant at the .01 level of confidence.

The third question investigated in this study was also answered in the affirmative. The planning ability of students and teachers for gifted children varies according to type of child.

Summary

The three areas investigated in this study, attitude, insight, and planning, were found to vary significantly according to type of gifted child. Attitude varied the most with an F ratio of 82.866, significant at the .01 level.

CHAPTER V

INFLUENCE OF THE RESPONDENTS' BACKGROUND

The second major influence on those who teach the gifted which was explored in this study was that of the educational and experiential background of the respondents. This investigation sought an answer to the following question: Are answers to the first three questions asked in Chapter III influenced by membership in these groups:

1. Undergraduate students in an education course (Symbol: UG),
2. Full-time graduate students in an education course (Symbol: G),
3. Full-time teachers who have taken graduate courses in education or psychology in the past three years (Symbol: T:C),
4. Full-time teachers who have taken no education or psychology course in that period (Symbol: T:NC)?

The mean summary scores of each of the four respondent groups for attitude, insight, and planning is presented in Table 19 (Appendix E). Teachers taking courses had the highest mean scores for attitude, and teachers taking no courses had the lowest. Graduate student scores were highest for insight and planning. Undergraduates were lowest in mean insight score, and teachers not taking courses were lowest in mean scores for planning.

Attitude and insight did not vary significantly according to group background, but planning did differ significantly at the .01

level of confidence. Information from this treatment of the data is shown in Table 16.

The influence of respondent background on the four continua of achievement, conformity, creativity, and aggression was measured by the questionnaire, and results shown in Figures 4 through 15. The N's for these figures can be seen in Table 2.

Group Variance of Attitude

With attitude as the criterion, a statistically significant variation among groups of respondents on total attitude scores was not found, as is shown in Table 13, Appendix E. However, the interaction of the groups with the different children was significant at the .01 level with an F ratio of 2.388. The largest difference on attitude found among groups was that of attitude toward Howard. The graduate students tended toward favorable attitudes with a mean score greater than twice that of the undergraduate students, or of the teachers taking coursework. The mean scores on attitutude toward Howard are shown in Table 27.

Group attitudes toward categories.--All groups had a higher attitude score for achievers than for underachievers, as is shown in Figure 4. Graduate student scores showed the greatest acceptance for the underachiever, with the teachers taking no coursework having the lowest scores, or least acceptance of this category. Teachers taking courses had the highest attitude scores for the achiever. The mean scores for all groups were similar.

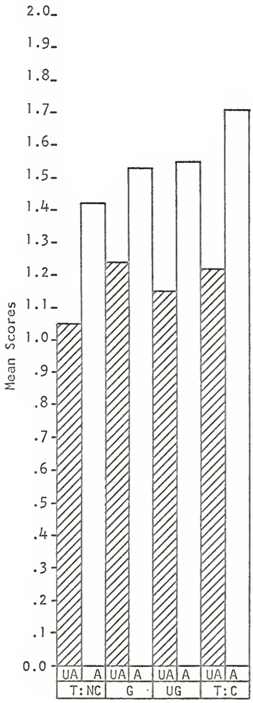

Fig. 4. Attitudes of four respondent groups toward achievers and underachievers among gifted pupils.

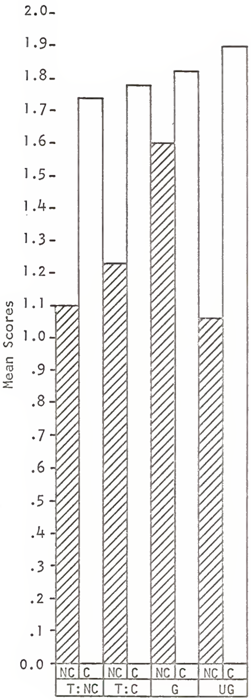

Fig. 5. Attitudes of four respondent groups toward conformers and nonconformers among gifted pupils.

Figure 5 compares the attitude scores of the respondents for conformers and nonconformers. There was little difference among the groups in attitude toward the conforming pupils. All scores were high. All scores for the nonconforming pupils were much lower and similar, with the exception of the graduate students. This group had scores closer to those of the other groups for the conformer. G mean score for C was 1.82, and for NC, 160. The next highest mean for NC was 1.32 for T:C. The mean scores for this figure and for Figures 4 through 15 are included in Table 19, in Appendix E.

A comparison of mean attitude scores of the four respondent groups toward gifted pupils who displayed much or little creativity is shown in Figure 6. All groups had higher scores for pupils who were low in creativity than for those who were highly creative. There was little variance among groups.

Figure 7 gives the comparative mean score placement of attitude toward aggressive and withdrawn pupils for the four respondent groups. There was close agreement in the lower scores for the aggressive child as there was in the higher scores for the withdrawn child.

Differences in Item Choices

The number of choices for each item concerning the ten prototypes can be seen in Table 39, in Appendix E.

Mary.--All groups preferred conscientious as a description of Mary, to dependable. The term boring was chosen only by three T:NC, and the term smug was chosen by only one UG.

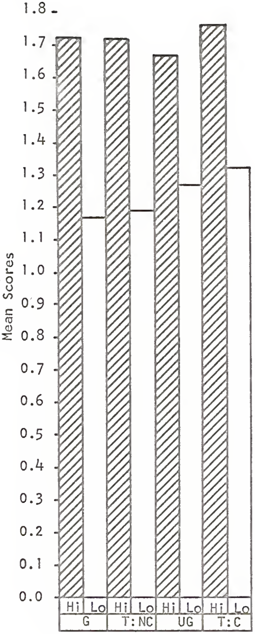

Fig. 6. Attitudes of four respondent groups toward high and low creatives among gifted pupils.

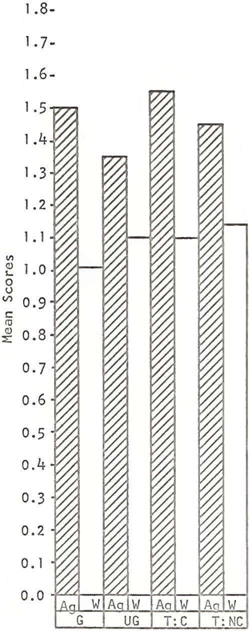

Fig. 7. Attitudes of four respondent groups toward aggressive and withdrawn gifted pupils.

Howard.--All five items for Howard received numerous checks. G chose the neutral answer of bright, more than any other item, while the other three groups had the highest number of choices for lazy. Hostile was the second most popular choice.

Joan.--Undergraduate students chose to think of Joan as a creative thinker rather than as musically gifted. The other groups reversed this order. One-fourth of the respondents considered her a procrastinator. About half of these were T:NC.

Susan.--Approximately half of the respondents found Susan creatively brilliant, and a third considered her a leader. These were the first and second choices for all respondents.

Mike.--The largest number of choices were given to the neutral answer of studious loner for Mile. This was the first choice for UG and T:C. It was a close second for G and T:NC, who made the favorable response of self-motivated their first choice. Self-motivated received a large number of choices. The favorable item good at analysis was selected by only nineteen persons, and the two negative items were practically ignored.

Patti.--Over half the respondents chose sensitive, a favorable response for Patti. This was first choice of all groups except the teachers not taking courses who had an equal number of choices for the neutral item religious. This was the second choice for all other groups. Only 26 thought of Patti as creative. T:NC were most numerous in choosing this. Very few respondents chose self-centered or abnormal.

Wayne.--Most respondents saw Wayne as interested in many areas a favorable response. Approximately half of those taking courses on a graduate level chose this. UG were about evenly divided between that and the unfavorable choice show-off. T:NC divided their responses evenly between the two favorable answers. They were also the most numerous in checking argumentative.

Judy.--Talented, a favorable answer, was the first choice for Judy, of all groups except UG. Their first choice was hostile, an unfavorable item, and the second choice of the other groups. The other three items received few choices. Talented was chosen mainly by teachers, 54 per cent of whom chose the term as compared with 41 per cent of the students, and hostile was selected by 46 per cent of the students as compared with 24 per cent of the teachers.

Paul.--Genius was the term chosen by the majority of the respondents to describe Paul. Almost all the T:C checked this item. The other favorable term eager, was selected half as often. Only two T:C chose this.

Tom.--First choice for all groups for Tom was the unfavorable term, undisciplined. A favorable choice of creatively brilliant was chosen by 22 per cent of the respondents, most of them students.

Group Variance on Insight

With insight as the criterion, variance among the different groups' total scores was not significant. The interaction of the groups of respondents with the type of child, had an F ratio of 1.732, significant at the .05 level. These data are shown in Table 14, in Appendix C. These interactions varied most for Mary and least for Patti.

Table 6 gives the mean scores of each respondent group for each of these extreme child types. The UG exhibited far less insight into Mary's problems than any of the other groups, according to the interpretation of mean scores. The UG mean score was only one-sixth of the mean for the G and T:C. Mean scores for Wayne and Joan showed the most differences among all groups. Wayne's low of .37, representing insight by teachers taking courses was .11 below the UG mean, .21 below the G mean, and .36 below the T:NC mean. Joan's scores vary in a similar manner.

TABLE 6

LARGE VARIATIONS IN FOUR RESPONDENT GROUPS' MEAN SCORES ON INSIGHT

Group	N	Mary	Patti	Wayne	Joan
UG	62	0.08	1.40	0.48	0.55
G	55	0.49	1.40	0.58	0.91
T:C	35	0.49	1.57	0.37	0.86
T:NC	62	0.40	1.52	0.73	0.73

Insight did not vary as much from group to group as did attitude and planning. The greatest difference among groups was the difference between UG and G, as can be seen in Table 23, Appendix E. However, this difference was not statistically significant as shown in Table 14, also in Appendix E.

Insight into Categories

Achievement.--The four groups' scores on insight were considerably higher for the underachiever than for the achiever, and varied little from one group to another. The underachiever scores varied from 1.13 for T:NC to 1.25 for T:C. Figure 8 shows a little greater variance in the mean scores among the groups for insight into the achiever. The graduate students had the highest scores and the T:C the lowest.

Conformity.--Figure 9 shows little difference among groups or between insight scores for conforming and nonconforming pupils. The only exception was found among UG. UG scores for insight into NC averaged 1.12 and into C, .75.

Creativity.-- A very great difference in scores of insight into gifted pupils with high and low degrees of creativity, can be seen from an inspection of Figure 10. All groups had higher scores for the pupil who was highly creative. Highest mean scores were received by the students and the teachers received lower ones. Mean scores for those pupils who were low in creativity were highest for G and lowest for UG.

Aggression-Withdrawal.--The differences in scores for aggressive and withdrawn pupils was less pronounced than for creativity. There was a variance among respondent groups. More insight was shown into the withdrawn than into the aggressive, although the UG showed little difference. The T:C showed the greatest difference in insight between the two categories. These data are summarized in Figure 11 and in Table 20, Appendix E.

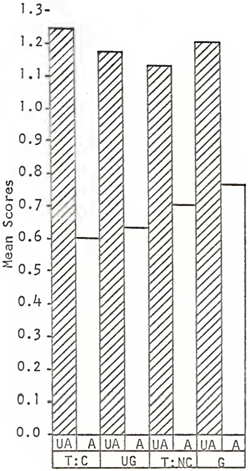

Fig. 8. Insight into achievers and underachievers by the four respondent groups.

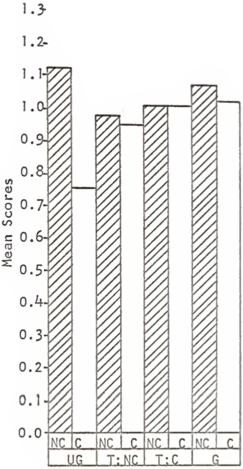

Fig 9. Insight into conformers and nonconformers by the four respondent groups.

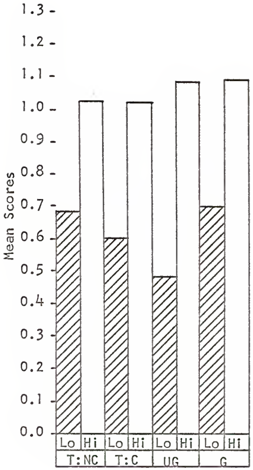

Fig. 10. Insight into high and low creative pupils by the four respondent groups.

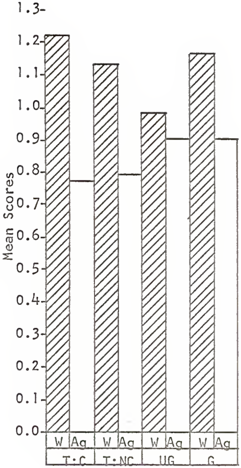

Fig. 11. Insight into aggressive and withdrawn gifted pupils by the four respondent groups.

Needs.--The teachers selected intellectual need items in 41 per cent of the cases, while the students chose them in 35 per cent. However, 25 per cent of the G correctly identified the intellectual needs. These respective choices were made by 28 per cent and 11 per cent of T:C. This information is presented in Tables 7 and 18. Table 18 is included in Appendix E.

TABLE 7

PER CENTS OF QUESTIONNAIRE FREQUENCY, GROUPS, AND TOTAL RESPONDENTS CHOOSING VARIOUS BEHAVIOR REASONS AS INSIGHT INTO GIFTED PUPILS AND COMPARISON WITH SCORING IDEAL

Reason for Behavior	Item Frequency	UG (N=62)	G (N=55)	T:C (N=35)	T:NC (N=62)	Total Group	Scoring Ideal
Child's Fault	30	20	20	31	22	21	0
Intellectual Needs	24	34	35	39	41	38	70
Emotional Needs	18	20	21	20	17	19	20
Practicalities	10	8	5	3	6	6	0
Nonconcern	10	12	9	9	7	9	0
Interpersonal Relations	8	6	10	7	5	7	10

Differences in Item Choices

Mary.--About half the respondents thought Mary's problem was too little work, and about as many saw her as having no problem at all. Only 15 per cent chose repressed creativity. This included 22 per cent of those taking graduate courses and only 9 per cent of those who had not. UG were the most numerous in seeing no problem.

Howard.--No one chose too much pressure as Howard's major problem. However, over half the respondents chose the other two incorrect answers, undeveloped intellect and lack of responsibility. Only 24 per cent recognized his failure to accept himself. G were highest in choosing this item, as 31 per cent perceived him as not accepting himself.

Joan.--The subordinate answer, poor study habits, was chosen most often, and the incorrect answer, short attention span, was second high. The majority of respondents who chose short attention span were undergraduates and teachers not taking courses. Thirty students perceived Joan's problem as inability to evoke response and affection, while 12 teachers so viewed it.

Susan.--No problem was the first choice of the respondents while overbearing manner was second. Students were in the majority in making this choice. Hyperactivity was third. A large proportion of teachers chose this. No one selected dislike of others and only 18 chose boring schoolwork, the correct answer.

Mike.--The correct answer for insight into Mike, undirected ability, was recognized by over half the respondents, and was the first choice of all groups except the G who were evenly divided with the subordinate response of inability to relate to others. The three negative answers were chosen by a total of only fourteen respondents.

Patti.--There was considerable agreement in understanding Patti's problem. Perception of adult problems without sufficient experience was the correct answer recognized by 144 respondents, and the first choice for all groups. Very few made insufficient work their choice.

Wayne.--The incorrect response overconcentration on intellectual matters was the first choice of all groups. The G were fairly evenly divided in their first three choices, however. Their second and third ones were inferiority feelings, which was incorrect, and rudeness, which was subordinate. Thirty-nine respondents chose the correct answer of uneven intellectual development. Of these, T:NC were most numerous, 27 per cent making this choice.

Judy.-- Emotional disturbance, the subordinate reason, was chosen by most of the respondents as Judy's major problem. The T:NC were the only ones who made the correct answer of boring schoolwork their first choice. The UG were most numerous in choosing this, while T:C had the lowest per cent of their group checking it. The G were almost as low with 27 per cent checking the correct answer and 23 per cent checking the incorrect answer, dislikes others.

Paul.--In selecting Paul's major problem, about half the respondents chose the correct answer, lack of communication with stimulating minds. The G made this choice in 54 per cent of the cases. Secondary choices for all groups were divided among the three wrong answers. Of the students, 21 per cent chose too little work, and 24 per cent of T:NC selected has not learned to relax as he works. Twenty per cent of T:C chose too interested in intellectual pursuits. This group divided their remaining answers fairly evenly among the three wrong answers.

Tom.--The correct response for insight into Tom, uneven development, was chosen by 142 respondents. Other responses received few checks. The two groups taking graduate courses were highest with 70 per cent of the groups making a correct choice, and the T:NC were lowest with 60 per cent. Concentrates on wrong work and lack of interest in intellectual and academic matters, two incorrect answers, were chosen by 12 per cent. The T:C were the least numerous in choosing the two wrong answers as 7 per cent of them did, while 29 per cent of the T:NC made incorrect choices. The numbers of choices for insight items are given in Table 40, Appendix E.

Planning Variance According to Groups

Planning varied among the groups with an F ratio of 9.519, significant at the .01 level of confidence. The difference of planning ability for the ten types of gifted children differed significantly at the .01 level of confidence, and there was a significant interaction of groups and type of child in the planning ability of the respondents. The greatest range of mean scores for planning among the four groups was for Wayne. There were also sizable variations for Mary and Susan. This information is shown in Table 8.

TABLE 8

GROUP MEAN PLANNING SCORES FOR WAYNE, MARY, AND SUSAN

Group	N	Wayne	Mary	Susan
Undergraduates	62	3.18	2.90	2.97
Graduates	55	3.62	3.53	3.44
Teachers-Courses	35	3.00	3.14	3.00
Teachers-No Courses	62	2.60	2.92	2.60

Planning for Categories

Planning did not vary as greatly for the groups in achievement and conformity as it did in creativity and aggression-withdrawal. All groups had much higher scores in planning for achievers than for underachievers. These findings are given in Figure 12 and scores given in Table 21, which is in Appendix E.

Figure 13 gives the results for C and NC. Here again the G have highest scores and the T:NC the lowest. The UG showed no difference in their planning ability for these two types of gifted pupils.

In planning for gifted children who were low in creativity, the respondents scored higher than in planning for those who were highly creative. This was true for each of the four groups of respondents as is shown in Figure 14. However, the T:NC's scores for planning for Lo were as low as the other groups had for Hi. G had very high scores in planning for Lo. Their score was also highest for the Hi.

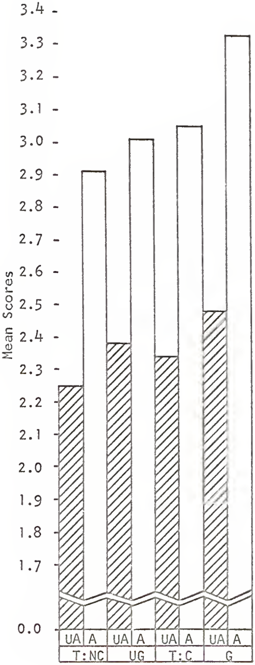

Fig. 12. Planning for gifted achievers and underachievers by the four respondent groups.

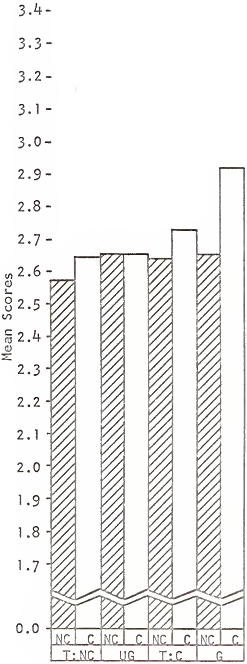

Fig. 13. Planning by the four respondent groups for conformers and nonconformers among gifted pupils.

Figure 15 compares the mean scores of planning by each of the groups for the aggressive and withdrawn pupils. The scores were much higher for Ag than for W. W planning score means varied little.

Differences in Choice of Planning Items

Mary.--In planning for Mary, all groups of respondents were definite in their preference of preparing special assignments which give practice in different ways of thinking. This was chosen by 183 respondents, while only 99 chose the second correct answer of excuse from class reading assignments and allow to use this time for independent study. The neutral answer of using Mary as a teacher aide was chosen second most often by respondents as a whole, and by UG and T:NC. G and T:C gave their second highest number of choices to the independent study.

Howard.--One of the correct planning responses for Howard, give him responsibility on a selected committee, was the first choice of all groups. The second correct answer, have Howard placed in a different class, was chosen by only eleven respondents. The neutral and two wrong answers were about equally chosen.

Joan.--In planning for Joan, most respondents chose the neutral response of building work habits. Twice as many UG and G chose the correct answer of finding words to describe the sky much more often than the teachers, as 77 chose this item compared to 31 teachers. The second correct answer, sociogram as basis of committee work, was the third most often chosen answer.

Susan.--The planned research by Susan was chosen by a large majority, and over half chose the second correct answer also, looking

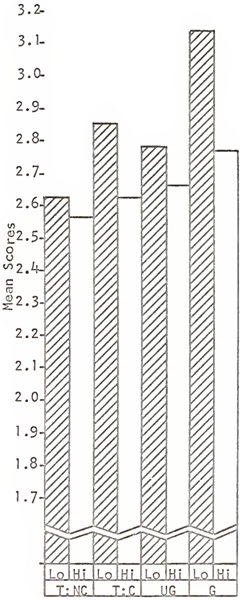

Fig. 14. Planning by four respondent groups for high and low creative gifted pupils,

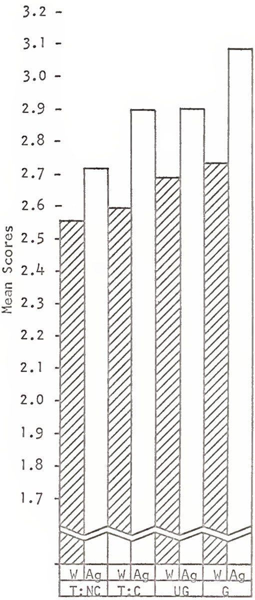

Fig. 15. Planning by four respondent groups for aggressive and withdrawn gifted pupils.

for reasons behind behavior. T:NC chose the neutral answer, helping her learn effective study techniques as a second choice. The other three groups chose the two correct answers for their first and second choices.

Mike.--The most popular plan for Mike was to explain his need for whole self-development, an incorrect response. The second choice was a correct one of encouraging physical activity. The second correct response, the encouragement of mathematics in science, was third choice of most respondents.

Patti.--Few persons chose the incorrect answers in planning for Patti, and a large majority of all groups recognized the need to involve Patti in group work, by checking that response. A second choice for all groups was the neutral answer, make the classroom inviting. The other correct answer was a poor third choice.

Judy.--Almost all respondents chose the two correct answers in planning for Judy. Using art in a class project was chosen by 204 respondents, and increasing understanding of attitudes was chosen by 191. All groups were quite evenly divided between these two answers. The T:NC were highest with 94 per cent choosing the correct answers. The T:C were lowest with 90 per cent. In all groups more respondents chose the project than did the understanding.

Paul.--The most popular response for Paul was the neutral one, use him as helper with slow students, chosen by 58 per cent of the respondents. Almost equally popular, with 56 per cent selecting it, was the incorrect choice, plan life situation in mathematics. The two correct answers were selected by 43 per cent each. The undergraduates were most numerous, with 70 per cent checking the neutral item. Of all groups, UG had the smallest per cent choosing the correct answer. Only 34 per cent of them chose logic and 38 per cent chose underlying structure. The T:C had the highest number, 54 per cent, choosing logic, but were second low, with 40 per cent, in choosing structure. T:NC were the highest with 47 per cent choosing the correct answer of structure.

Tom.--In planning for Tom, most respondents chose the correct answer, set up a system of self-evaluation. Eighty-eight per cent of those taking graduate courses chose this item, while in the other two groups 63 per cent selected it. The neutral answer, involve him in group work, was selected by 112 respondents. Over half of all groups except T:C chose this item. A large number chose appeal to him to use his ability. The second correct answer, increase length of work periods and expect good work, was the most unpopular response. Almost a third of UG chose this correct answer. The other three groups had few members choosing it.

The numbers of choices for planning items are given in Table 41, in Appendix E.

Type of choices.--Items stressing interpersonal relations were chosen 26 per cent of the time by G, and 22 or 23 per cent by other groups. Development of intellect items were stressed less by T:NC than by other groups. The teacher groups chose punitive measures more often than did the student groups, although all groups tended to avoid the punitive and authoritarian control items. The groups taking advanced education courses were more frequent in their choice of self-concept items. They were also less frequent in their choices of practical measures.

Percentage of correct choice.--Groups were approximately equal in their percentage of correct and incorrect measures of planning for intellectual development of the prototypes. G were nearest the scoring ideal with 30 per cent making the correct plans, and only 8 per cent choosing incorrect ones. The T:NC were the farthest from the ideal with 29 per cent and 11 per cent, respectively. This information is shown in Table 9 and Table 18, Appendix E.

TABLE 9

PER CENTS OF QUESTIONNAIRE FREQUENCY, GROUPS, AND TOTAL RESPONDENTS CHOOSING VARIOUS GOALS IN PLANNING FOR GIFTED PUPILS AND COMPARISON WITH SCORING IDEAL

Goal	Item Frequency	UG (N=62)	G (N=55)	T:C (N=35)	T:NC (N=62)	Total (N=214)	Scoring Ideal
Intellectual Development	34	41	40	42	38	40	55
Practicalism	22	19	15	15	16	17	5
Interpersonal Relations	16	23	26	23	24	24	30
Authoritative Control	12	4	3	5	6	4	0
Self-concept	6	6	9	8	7	7	5
Nonconcern	6	1	2	1	1	1	0
Balanced Development	4	5	6	6	6	6	5

Correlations of Choices

UG scores.--The UG had only five correlations which were significant at the .01 level of confidence among their scores. These results can be seen in Table 42, in Appendix E. The only negative correlation was between attitude toward Patti and insight into Howard. The four positive correlations involved planning. Only one of the correlations did not involve insight. This correlation was that of attitude toward Susan and planning for Patti, where r = plus .344.

G scores.--Table 43 in Appendix E gives the significant correlations among scores for G. This group had five positive correlations and one negative, all significant at the .01 level. The negative correlation was between planning for Howard and insight into Judy. The highest correlation for all groups was plus .5129, between planning for Howard and planning for Tom. This was the only correlation for the G which did not involve insight. None of the correlations concerned the same variables as those in the undergraduate group.

T:C scores.--T:C had the largest number of correlations significant at the .01 level, among their scores, as is shown in Table 44, Appendix E. There were eight positive correlations and two negative. The negative correlations were between insight into Joan and Mike, and insight into Mike and planning for Susan. Seven of the ten correlations involved insight. The correlation between attitude toward Wayne and insight into Tom was the one correlation obtained by more than one group, G and T:C.

T:NC scores.--Table 46, Appendix E, shows that teachers not taking courses were a close second in number of correlations significant at the .01 level. There were six positive and two negative correlations. The negative were between attitude toward Mary and insight into her problems and between insight into Mary and attitude toward Joan. The only correlation which did not involve insight was between attitude toward Howard and toward Tom.

Variance of Total Provision for Prototypes

Table 10 shows that there are no significant differences in the scores obtained by the four groups for seven of the ten gifted pupil types. There were significant differences at the .01 level for Mary, Howard, and Susan. In this table the F ratio represents the significance of the variation of the four groups in reference to the total scores which they received for the ten prototypes.

TABLE 10

VARIANCE OF TOTAL SCORES AMONG GROUPS
FOR TEN TYPES OF GIFTED CHILDREN

Type Child	Sum of Squares	Mean Square	F Ratio	Significance Level
Mary	9.72	3.24	6.362	.01
Howard	9.71	3.24	4.557	.01
Joan	3.50	1.17	1.346	NS
Susan	7.17	2.39	4.689	.01
Mike	1.92	0.64	1.055	NS
Patti	1.51	0.50	0.787	NS
Wayne	6.17	2.06	2.425	NS
Judy	2.94	0.98	1.418	NS
Paul	0.47	0.16	0.207	NS
Tom	3.54	1.18	1.317	NS

Significant differences in group-child interaction were found. The F ratio of differences in interaction on attitude was 2.388, significant at the .01 level as shown in Table 13, Appendix E. The F ratio of differences in interaction on insight was 1.732, significant at the .05 level, shown in Table 14, Appendix E. The F ratio of differences in interaction on planning was 2.162, significant at the .01 level. This information is given in Table 16, also found in Appendix E.

TABLE 11

VARIANCE OF INTERACTION OF GROUPS WITH ATTITUDE, INSIGHT, AND PLANNING SCORES FOR THE TEN PROTOTYPES

Type Child	Sum of Squares	Mean Square	F Ratio	Significance Level
Mary	11.41	1.90	4.376	.01
Howard	11.63	1.94	2.795	.05
Joan	6.08	1.01	1.402	NS
Susan	6.76	1.13	1.889	NS
Mike	0.01	1.50	2.990	.01
Patti	4.91	0.82	1.516	NS
Wayne	30.00	5.00	6.570	.01
Judy	9.97	1.66	2.804	.05
Paul	3.14	0.52	0.707	NS
Tom	1.50	0.25	0.355	NS

The interaction of group with attitude, insight, and planning was significant in half of the cases. Interaction was significant at the .01 level for Mary, Mike, and Wayne. It was significant at the .05 level for Howard, and Judy. The variance of total scores was not significant in the case of any other type child investigated. This information is given in Table 11.

Gifted Children Known

The G knew the most gifted children as can be seen from the information in Table 12. The general order of scores for the number of children is in the same order as the total mean scores, with the exception of the UG. In the cases of the UG and T:NC, both scores and children known were almost identical. Spearman's rho for the rank order correlation between the mean number of gifted children known by each group and the mean total score is plus..80. However, the correlation of the number of gifted children known by the individual respondents of the total group correlated with the total mean score, using a Pearson product-moment correlation, is plus .1877, and with the planning mean score is plus .1828, both significant at the .05 level.

Total Score Correlations

The largest correlations were those of total score with attitude, insight, and planning. Only a few of the respondents' scores for the prototypes approached these. Among UG scores, attitude and total score were the correlates of the highest correlation, r = plus .7134. Correlations for the UG can be seen in Table 42, Appendix E.

TABLE 12

THE NUMBER OF GIFTED CHILDREN KNOWN AND TOTAL MEAN SCORES FOR FOUR GROUPS AND FOR ALL RESPONDENTS

Group	N	Mean Number of Gifted Children Known	Mean Total Score
G	55	18	52.71
T:C	35	12	50.71
T:NC	62	5	48.27
UG	62	3-4	49.47
TOTAL	214	9	50.16

Among the graduate student scores insight and total score had the highest correlation, r = plus .7713. Correlates of attitude or planning with total score were almost equal. These and other correlates with attitude, insight, and planning can be seen in Table 47.

The highest correlation of all groups was that between planning and total score of the teachers taking courses, a high of plus .8145. Correlations of total score with attitude and insight were also very high, plus .7335 and plus .7003. Five of their scores for prototypes correlated highly with the category scores, ranging from r = plus .6382. These data are given in Table 48, Appendix E. The highest correlation for the T:NC was total score with insight. Planning with total score was second high. The correlations for the T:NC are given in Table 49, Appendix E.

Summary

The fourth question which the investigator sought to answer was whether the membership in the four groups of respondents in the study correlated with responses to questions on attitudes to questions on attitudes toward the ten gifted children, on insights into their behaviors, and on planning educational programs for them. The answer to this question is a qualified yes. Planning for gifted pupils was significantly influenced by the educational and experiential background of the individual. Attitude toward gifted pupils and insight into their problems was found to be influenced by background in the case of certain gifted child prototypes, and not in others.

CHAPTER VI

DISCUSSION OF RESULTS

Attitude Variance

Factors encouraging acceptance.--Attitudes of college students and teachers toward gifted children were found to vary significantly according to type child. Conformity and achievement were the most influential factors. This result was anticipated. Children who did what was expected and rewarded the efforts of their teachers by achieving tended to be seen in the most favorable light. Conformity, lack of divergence, as in the low creative child, and achievement are all factors which bring a child closer to his teacher. They were the high ranking factors in acceptance.

Factors encouraging rejection.--Those pupils who did not conform and who did not respond to instruction were more often rejected. This pertained especially to pupils in whom the nonconformity took the form of aggression. Aggressive traits were the least acceptable to the respondents. Aggression acts against a teacher, while nonconformity, underachievement, divergent behavior, as in the highly creative, and withdrawn, all place a distance between the pupil and the teacher. The withdrawn child, however, does not interfere with the teacher, and was the most accepted of this group. The highly creative child is more likely to threaten the teacher's security, as the underachiever and the nonconformist do.

Comparison with anticipated results.--The variance of attitude of all respondents according to different types of giftedness in pupils, was as anticipated. The pupils who were closest to the teachers in their goals were the most accepted. Those who placed a distance between themselves and their teachers, psychologically, received far less acceptance, Those pupils who acted against the teacher were most rejected, as anticipated.

Insight Variance

Effect of achievement.--The investigator found that insight also varied according to type child. Highest scores were obtained for insight into the undersachieving child, while the achiever was second low with a score 57 per cent as large as that for the underachiever. Teachers and education students who would find the underachiever a threat to their professional success, have probably studied him and his problems. They may have less understanding of his needs because they feel that the underachiever fares well without it. The low creative child received even less understanding, perhaps for the same reasons.

Effect of withdrawal.--The withdrawn child was second high in amount of insight shown into his needs by the respondents. The greater insight shown by all respondents into the withdrawn child, as compared with the aggressive, may be due to the greater emphasis on understanding the withdrawn child in college classes. Like the underachiever and the high creative, who scored first and third high, the withdrawn pupil puts distance between himself and his teacher. The nonconformer and the conformer were average in rank and score, although the nonconformer was considerably better understood than the conformer.

Effect of psychological distance.--The four highest insight scores included those children who moved away, psychologically and intellectually, from their teachers. The lowest scores were obtained by the three types who were closest to the teacher, and by the one who acted against the teacher, the aggressive. There probably seems less need to understand the pupil who is close to the teacher, because understanding is assumed by virtue of his acceptable behavior, including school achievement. Low insight into aggression, where there is the greatest need for understanding, is an exception to this conclusion. Perhaps extreme rejection, or preconceived notions of the respondents prevented insight. Perhaps the respondents' strong feelings that the child needed control did not allow for consideration of other needs. Perhaps the questionnaire items do not discriminate enough to allow for the measurement of insight into aggressive pupils.

Reasons for lack of insight.--Low insight was due in large part to the respondents' placing blame for many gifted pupils' problems on the child. The failure to see any problem and the large number of incorrect emotional and intellectual diagnoses were other reasons. Placing blame on the gifted child for any lack, and seeing no need to help him has been a common reaction of society as well as the school. Data gathered in the study indicate that teachers and college students are better able to identify intellectual needs than they can the emotional.

Comparison with anticipated results.--The variance of insight of all respondents according to the ten types of gifted pupils, was correctly anticipated. The anticipated higher scores for children whose needs resembled the average, those with emotional and behavior control needs, was supported by the data. Those who were psychologically farthest from the teacher were the best understood, and those closest were the least understood.

Planning Variance

The data show that planning for the gifted of the college students and teachers who were respondents in this study varied significantly according to different types of gifted pupils.

High and low categorical scoring.--The scores for planning were an exact opposite of those for insight. The achiever, the aggressive, and the conformer received highest scores while the underachiever, the withdrawn, and the high creative received the lowest. This was not expected, as it was anticipated that planning would be based upon insight into the behavior of the children.

Reasons for high scores.--Traditional education is focused on the conforming achiever who has little creativity. Scores for these three categories were first, third, and fourth. The second high in scores of planning ability was for the aggressive child. This is the child for whom the teacher must be able to plan and whose behavior he must be able to control, if he expects to create an appropriate learning climate for his other pupils. Perhaps planning can be effective without understanding basic needs.

Reasons for low scores.--The pupils who tend to put distance between themselves and their teachers, had the least appropriate planning. Mean scores were very similar with a range of .04 for the low creative, and nonconformer, the high creative, and the withdrawn pupil. They were not much lower in score than for the conformer and the aggressive. The achiever was a definite high and the underachiever a definite low. This was expected. The underachievers were well understood according to the standards built into the instrument, but this understanding was insufficient for appropriate planning.

Group goals.--Teachers and college students in this study tended to stress the balanced life and interpersonal relations as major goals for the gifted. Next, their goals were development of intellect and self-concept. These values emphasized their concern for the child. This was highlighted by the avoidance of laissez faire or punitive policies much of the time. Even practical goals were subordinated to concern for the pupil.

Source of error.--The largest source of error in planning lay in the failure to choose measures which would develop the intellect. Teachers did not seem to consider this as necessary for the gifted as do the authorities in this field. The second largest error was in the choice of practical measures, which, although few in number, were in excess of what the ideal required.

Comparison with anticipated results.--Only slight support was found for the hypotheses concerning planning variance. The children closest to the teacher received the best planning. Those who interfered with the teacher's routine received the poorest planning, with the exception of the aggressive child. Planning for the aggressive child had been anticipated.

Total Variance

The great difference found in total scores among the prototypes indicates a need for teachers to consider the different facets of giftedness, instead of having the same expectations of all gifted children because they are gifted. This may be one reason some teachers who have children scoring in the gifted range on intelligence tests refuse to consider the children gifted.

According to the F ratios computed for variance of summary scores which were based on pupil types, attitude varied the most and insight the least. Teachers and students had strong feelings of acceptance or rejection toward certain pupils, but in no case did they show great insight into these pupils.

Group Variance in Attitude Scores

The variance of total attitude scores among the different groups was not significant. However, variance in child-group interaction was significant at the .01 level.

How G differed.--The graduate students differed most from the other groups in attitude toward Howard. They were more accepting of Howard than any other group. This may have been due to their knowledge of current psychological thought. In addition, they had no present responsibilities in dealing with a child such as Howard, and could afford to be more generous in their acceptance. The only other large discrepancy in their scores from those of other respondents was their tendency to reject Judy. This was also true of the undergraduate students. Perhaps a lack of teaching experience made the students see Judy mainly as a hostile person, rather than as a talented one.

How T:C differed.--The teachers taking courses were unusually favorable in their attitude toward Judy. They seemed to value both her achievement and her artistic talent. They were also high in their acceptance of Wayne, Howard, and Joan. Perhaps they had more courses in psychology, so that Wayne's superior attitude bothered them less, as did Howard's clowning. Both they and G indicated by their choice for Wayne, that those taking advanced courses seem to value broad interests more than others. In accepting Joan, the T:C varied most from the average respondent. Perhaps they valued musical talent more than the students did.

The large response of genius and eager may be a reflection of today's teaching of mathematics. Teachers are not known for their interest in mathematics, but have usually struggled to master it. It appears difficult for students and teachers to realize that a pupil may find advanced mathematics enjoyable. Perhaps in calling Paul eager they meant eager-beaver. The T:C were the exception in not responding to eager. They seemed to prefer genius.

The large portion of respondents who chose undisciplined did not follow through by choosing similar answers for insight and planning. This may mean that no item under attitude toward Tom seemed to appropriate to them. The lower level of appreciation of creative brilliance in Tom may be due to having had to deal with such children in their classes, and finding it frustrating.

How UG differed.--There is no readily apparent reason why the UG emphasized creative thinking in connection with Joan, and the other groups emphasized musical giftedness. The gift in music was stated in the description. The creative thinking was probably deduced either from the music or from the daydreaming. In attitude toward Wayne, the UG chose show-off. Perhaps they resented this quality in fellow classmates. This same perception of a pupil as a fellow classmate may have been operating when they saw Judy as hostile.

How the T:NC differed.--The teachers not taking courses scored lower than the other groups. Only two prototypes received scores which were higher than average. These were Joan and Wayne. This group was second only to the other teacher group in their acceptance of these two pupils. The same reasons which were true of the T:C could be applicable to their preferences. Many of these teachers saw Wayne as alert. Perhaps teachers like to have a pupil ready to respond to the subject at hand. Because Wayne tends to threaten a teacher's security by knowing more than she does in certain areas, and by contradicting her, it is surprising that more of these teachers did not choose show-off. However, eleven of them did choose argumentative.

Group Variance in Insight Scores

Types with greatest variation.--The significant differences in group-child interaction in insight were greatest for Mary, Joan, and Wayne. None of these children were discipline problems and all had low insight scores.

Study on a graduate level may be helpful in seeing the needs of a child like Mary. It was among these respondents that most insight was shown. They were aware that Mary was not learning and developing as she should. They caught a glimpse of her great need to please, for which she sacrificed her creative manner of learning. The questionnaire description was not written in a manner to make these qualities obvious. Possibly those who answered too little work meant too little creative work. Certainly those who answered no problem, or who thought Mary's main need was something to keep her busy, one-fourth of all but the graduate group, would be ineffective teachers for this child.

In Joan's case, the undergraduates showed more psychological insight than the teachers taking courses, in recognizing Joan's need for communication with others. Perhaps some of the UG identified with Joan. It is expected that teachers would tend to be more practical-minded in their struggle to help children develop good habits, and to lengthen short attention spans. The graduate students appeared to emphasize the emotional aspects of behavior.

Adults tend to rationalize when a child exhibits more knowledge than they have. In this study, 42 per cent of the respondents decided that Wayne was over-using his mind. Perhaps they made the mistake of thinking that intellectual activity is composed of cognition and memory. Their choice indicates a need for better understanding of mental processes. Only 18 per cent of all respondents chose the correct answer of uneven intellectual development. In checking this item, the four groups of respondents ranged from 14 per cent of the teachers taking courses to 27 per cent of the teachers taking no courses. It is surprising that those taking no courses should be highest in sensing a need for wider intellectual activity. The reasons the two groups doing graduate work did so poorly in understanding this may have been their concentration on emotional causes.

Types with average variance.--The full-time graduate students have better insight into the aggressive child's problems. They recognized Howard's failure to accept himself. However, the fact that only 31 per cent of these could see this, and that one-half of all respondents chose undeveloped intellect and lack of responsibility, shows the tendency to place blame on the aggressive child, rather than to seek a way to help him.

The greater number of choices by graduate students and by teachers taking courses for emotional disturbance as Judy's problem may be evidence of the effect of advanced education on a clinical approach to children. The UG and T:NC were more numerous in taking a practical approach and in naming boring school work as the problem.

A large number of the respondents understood Paul's need for stimulation, especially from others. This is in contrast to the small degree of understanding of this principle in connection with Mary, Joan, and Susan. The keener perception of the G may be due to a combination of their course content, and their own experience of needing to communicate with others who can stimulate their thinking. The division of secondary choices into too little work by the students, and hasn't learned to relax by the teachers does not appear to have any clear meaning. The students may be more accustomed to traditional learning situations and feel that a child should always be doing assigned lessons, while the teachers may not be accustomed to the child who is so ambitious and, therefore, attribute his behavior to undesirable tendencies. The fifth of T:C who chose too interested in intellectual pursuits emphasize their concern with balanced development. Perhaps this is a popular opinion that the gifted child has already reached his intellectual goal, so he should be discouraged from further intellectual activity until he is ready to learn at his chronological age level.

The majority of respondents saw Susan either as no problem or as overbearing or overactive. Very few saw a responsibility on the part of the school for helping her develop intellectually. This indicates a need for teachers and the public in general to think in terms of individual programs and development instead of in terms of grade levels. Perhaps boring school work was chosen so seldom because many respondents assumed that a teacher who directs a class play would not be guilty of assigning boring work.

Types with most agreement.--The findings on insight into Mike indicate that education students and teachers perceive a need for help with special abilities in some gifted children. The graduate students, who seemed to emphasize the emotional and interpersonal, were equally impressed with Mike's inability to relate to others. In general Mike appears to be a type child who is well known and well understood. This may have been influenced by the post-Sputnik emphasis on science.

The keen insight shown concerning Tom's problem may have been due to the mention of poor writing in the description, and the lack of writing skills in the answer. Almost one-fourth of the respondents thought Tom was not learning from his unassigned map work and political concerns. Four times as many T:NC chose concentration on wrong work and lack of interest in intellectual and academic matters, as did T:C. Advanced courses combined with experience seemed to result in the best understanding for this type child.

Teachers and students in this study seemed to be fairly well attuned to the emotional needs of the gifted child with imagination. They did not attribute Patti's problems to idleness. Three-fourths of the T:C identified Patti's problems correctly, while other groups ranged from 64 per cent to 67 per cent. This indicates greater insight into the child from a combination of experience and advanced education. Experience may have been influential in helping T:NC to see signs of emotional disturbance instead of no problem, which the students tended to check.

Type of Needs Chosen

Although the teachers tended to choose intellectual reasons more frequently, the G were the most adept in selecting the correct intellectual needs for the children, and in avoiding the incorrect ones. The G were clinically oriented with more emphasis on interpersonal relations and emotional needs than the teachers, and also had greater understanding of learning theory.

Failure to recognize the existence of any problem was most often true of the UG, and least often of the T:NC. The UG tendency to look for practical reasons, almost completely lacking in the T:C, revealed their early stage of development in understanding children.

The emphasis of the T:NC on intellectual and academic need or blaming the child, and their avoidance of interpersonal relations, emotional need and lack of a problem, was probably a result of their experience. These teachers have often received pressure from parents, administrators, and achievement tests, to make children succeed in the academic work at their grade level. They have found this impossible in some cases. Having done all they could, it was natural to blame the child, either his nature, or his background. These teachers had high standards which alerted them to problems, but because of the previously mentioned pressure, they seldom saw these problems as emotional or interpersonal.

Group Variance in Planning

High scores for students.--Contrary to expectations, full-time students, both graduate and undergraduate, scored higher on ability to plan for gifted children than did the teachers, both those who had taken recent courses, and those who had not. The major difference in these two groups was the recency of full-time college work. Two factors probably operated. One was the improved present college education which included recent research in this area. The second factor was the focus of teachers on practical measures, such as room management, and the tendency to forget, over a period of time, some of the higher educational objectives.

Greatest and least variance.--The greatest variance in child-group interaction in planning was in the cases of Wayne, Mary, and Susan. These prototypes all had high scores. There was considerable agreement in planning for Paul, Howard, Judy, and Tom, three of whom had low scores. Judy's score, however, was the highest of all ten prototypes.

Planning differs from attitude and insight in this respect. In attitude and insight, there was agreement where scores were high, and disagreement where scores were low, indicating a random answer where there was little understanding or an unfavorable reaction. In planning, the greatest variation was in the higher scores. This means that certain groups were able to plan well for these children, while others were not. The fact that most agreement took place in the lower scores, indicates many misconceptions about planning for these children.

Item Choices

Wayne.--In planning for Wayne, the G and the T:C were highest in proportion of their groups which chose better interpersonal relations as a solution. The UG and T:NC made this choice much less frequently. Only the T:NC were unable to discriminate between the divergent thinking and cognition. Just as many of them wanted Wayne to engage in more information gathering as wanted him to try a different mental operation. This was also the group which was first in wanting to point out Wayne's faults. They did not seem to understand the probable adverse effects of such a technique.

Mary.--In planning for Mary, the correct answer of different ways of thinking was chosen overwhelmingly. Research indicates that very little of this is done in the average classroom (Torrance 1965, p. 211). Because the majority of respondents realized the need for it, it would be well for teacher preparation and inservice training to include practice in preparing such lessons. About half of the respondents chose to make use of Mary as a teacher aide as the major approach to providing for her needs. There is indication that this type child tends to be exploited rather than guided in her development. This followed their choices for insight, showing little concern for the school's part in Mary's intellectual development. Only a third of the T:C chose this, while approximately half of all other groups did. This was another indication that advanced education courses seem to improve teacher effectiveness.

Susan.--All respondents were close to the scoring ideal in planning for Susan. The T:NC tended to suggest emphasizing study techniques above improving interpersonal relations, although Susan did not show a need for this prescription, but had shown a lack of understanding of others. Research in a unit of work was a technique familiar to most education students and would keep Susan out of other people's business. Perhaps these were two reasons for that item's popularity.

Mike.--Because teachers and students understood Mike's need for development in other areas, they believed that he would benefit from an explanation to that effect. A need was seen to encourage the physical, but not to help with the intellectual. This is at variance with the answer given to the question on insight.

Joan.--The planning for Joan seemed to follow the choice of the majority for insight. Building good work habits would improve her work and lengthen her attention span. Joan's need to learn creatively was recognized by the full-time students. Fewer respondents thought it helpful to involve Joan in social activities with those who would be most receptive to her. The T:NC preferred this choice. It is probably an activity which was familiar to them, but unfamiliar to most of the UG who did not choose sociogram.

Patti.--The respondents seemed far more aware of Patti's need to learn to enjoy the human race, than they did of any need to attack the problem directly. They seemed to think that a gifted child would be easily distracted, and believed that an inviting classroom would be sufficient to make her forget her worries.

Tom.--The majority of respondents understood the challenge that self-evaluation could be to Tom. Involving Tom in group work perhaps received such wide choice because it was highly recommended educational procedure. The combination of experience and advanced study represented by the T:C group may have prevented them from choosing this as a major approach. The avoidance of almost all respondents of the second correct answer was evidence of their unfamiliarity with the learning patterns of gifted children. The nineteen UG who chose the increase length of work periods item may have remembered having activities changed in the midst of involvement, robbing them of interest and ambition. The other groups probably were too well versed in the theory of keeping interest and attention by frequent changes, to realize that this did not apply to the gifted.

Judy.--Making use of individual talents in class projects has always been recommended educational procedure and was well recognized by almost all respondents. It is more surprising that the T:NC were so perceptive in their recognition of Judy's need to understand others. This is one of the few times that T:NC emphasized the choice of interpersonal relations as a major need.

Howard.--Perhaps the correct answer in planning for Howard was chosen because it mentioned responsibility, which many respondents thought Howard lacked. The item was also worded in an acceptable way which may have accounted for the appropriate planning when the insight was poor. The teachers were especially infrequent in selecting change of class as a solution. Perhaps they considered this to be a reflection on their ability. Show appreciation of his humor was an item which was probably chosen for its wording. Encourage his clowning would undoubtedly have received fewer checks.

Paul.--The results show that most individuals would have Paul help slow students and use mathematics in practical situations. This means that most students and teachers in this study would plan to assign Paul work on a far lower level than he was already doing, rather than to help him or even to allow him to develop in his chosen field of interest. The teachers more frequently chose the two correct answers than did the students.

Summary of Planning Variance

Education students and teachers tended to like the gifted conformers and achievers who had already reached the goals set for them. These are the gifted children who are best able to gain from a traditional program planned for the average students because they are able to learn by authority. Therefore, their planning scores were highest of all the gifted types. However, they were still only 68 per cent to 75 per cent of the possible score, while the poorest planning, for the underachievers, was 59 per cent. These scores reflected an over-all need for more research into better curriculum planning for the gifted and for better dissemination of results of present research.

Advanced study seemed to increase the emphasis on interpersonal relations and self-concept. Without such work, the teachers tend to be more concerned with practical and punitive measures.

Correlations of Item Choices

The students had fewer significant correlations of scores at the one-percent level or better than did the teachers. However, neither had many. There were nineteen significant correlations for the teachers and eleven for the students.

The major fact worthy of note is the predominace of insight in the significant correlations. It comprised 27 per cent of the correlations as opposed to 14 per cent for planning. This was anticipated, as understanding should influence both attitude and planning.

UG correlations.--The undergraduate scores had lower correlation coefficients than those of other groups. Insight into Wayne with his tactless ways correlated with planning for the tactless Susan and hostile Judy. All were possibly prototypes of classmates whom the UG had resented.

Insight into Howard, the underachiever who denies his ability in a desperate bid for acceptance, correlated with ability to plan for withdrawn, underachieving Joan. Those who saw Howard's great need may have seen this same need in Joan and found it easier to provide for her. Those who showed understanding of Howard tended to reject plodding troubled Patti, and vice versa. Those who could understand a need for peer acceptance may have had less patience with a child who was introspective and seemed to invent worries. Attitude toward Patti and insight into Howard were the highest scores for all groups.

Planning for Patti, which meant involving her in groups and helping her to understand the problem worrying her, correlated with attitude toward Susan. Susan seemed to do the right thing in the wrong way, stirring up resentment. The undergraduate students were the youngest respondents, and in an idealistic age group which sometimes fights for the right cause in the wrong way. Perhaps those UG who were most inclined toward causes could appreciate Susan's correct but unwelcomed efforts to improve situations, and could understand how to help Patti become more successful in her concerns.

G correlations.--The graduate students had the highest of all correlations in their scores. It is not surprising that those who could plan well for Howard could also plan well for Tom. They were highest in their ability to plan for Tom, but were second to the UG in planning for Howard. The two correct plans involved administrative devices and development of self-responsibility. The similarity of the two pupils in disturbing the class, and the similarity of the acceptable plans, makes the correlation seem logical. However, the correlation was significant only in the G group.

The negative correlation for G was the second highest correlation, and was between planning for Howard and insight into Judy. Those who recognized the advisability of responsibility and administrative change for Howard had little insight into Judy's problem. The right answer of boring school work would not seem to be as objectionable to G as it might to the teachers. Perhaps the G tended to think more in terms of emotional stability. Their longer school lives may have taught them to accept much boring work so that such an excuse would seem less valid.

Attitude toward Wayne and insight into Tom formed the next highest correlations. They shared high scores for insight with the T:C, and scored second lowest of the four groups on attitude toward Wayne. Both Tom and Wayne had a problem of uneven development, but the correlation of insight into both was not significant. The G accepted Wayne's superiority in general knowledge, but did not understand that it was evidence of uneven development. They understood Tom's uneven development, but could not accept his silly trouble-making ways. One can understand the admiration of a walking encyclopedia by a graduate student, who needs a phenomenal memory, and also his reluctance to call such an ability uneven development. The G's highest group score on planning for Wayne would indicate realization of the need for wider development. G are those who take schooling seriously and who have discovered the need for conforming to certain procedures which may seem unimportant was something which the graduates have learned to condemn, yet they can understand. It was probably a battle which they had fought themselves.

Those who accepted Joan, tended to understand Susan. All scores were low on insight into Susan, but the G had the highest scores. The major quality the two children have in common, is their creativity. The G liked Susan better, but understood Joan better. The G who saw Joan mainly as musically gifted tended to understand Susan's frustrated creativity in terms of boring assignments. Those who saw Joan mainly as retiring attributed Susan's difficulties to psychological traits.

Planning for Paul and insight into Mary were both low mean scores, but were correlated with each other. The two pupils has similar problems and required similar handling. However, Paul's area was specific, while Mary's was general. Those who saw Mary's problem as quantity, too little work, rather than quality, too little creative thinking, would tend to provide for Paul's needs in more practical ways, using the standard life situation or teacher's helper methods. The low scorers in both cases were seeing the traditional answer, while the high scorers saw the deeper needs and followed procedures which were frowned upon by traditional educators.

The graduate students who saw Joan as musically gifted and creative understood the lack of creative thinking in Wayne. His development was in the cognitive and memory areas, rather than in the higher processes.

T:C correlations.--The correlations of scores by the T:C occurred more often than for other respondent groups. Their highest correlation was between attitude toward Wayne and insight into Tom. This was also significant for the G and was their third highest correlation. As these teachers were also graduate students, the same reasoning could prevail here, also. Attitude toward Wayne also correlated with insight into Joan. Those who saw Wayne as alert and interested were able to see Joan's inability to evoke response and affection. Perhaps they thought this was also true of Wayne.

Those who recognized Joan's creativity also recognized Susan's. This correlation was true only of this respondent group. The combination of experience and advanced education seemed to have brought these teachers an accepting attitude toward these pupils. Their attitude scores were the highest of all groups, and the T:C rated them higher than all pupils except Mary and Paul.

The teachers who had insight into Tom's needs planned well for Mary. Tom's uneven development was stated more obviously in the questionnaire choices for Tom than in those for Mary.

The insight into Tom also correlated with attitude toward Susan. Those who understood Tom's uneven development tended to see Susan as a leader or as creatively brilliant. Both children are creative and because of this quality tend to interfere with the teacher's security. Emphasis on and acceptance of Susan's creativity correlates with understanding of the problem creativity can bring.

T:NC correlations.--The highest correlation for the T:NC involved insight into Tom and insight into Judy. Both of these students were highly creative, nonconforming, and aggressive. However, Judy did her school assignments and Tom substituted his own. These two prototypes were third and fourth in rank of insight shown by T:NC. The correct answers in each case were intellectual development. The T:NC tended to concentrate on academic goals, finding this type answer more pertinent than answers of emotional need or interpersonal relations.

The second highest correlation for the T:NC was planning for Tom and insight into Judy. The frequently chosen correct answer of a system of self-evaluation for Tom was a concept not usually practiced in traditional programs. However, it has been advocated by educators even though many have not found it feasible. Interest, as contrasted to boring school assignments, and self-involvement in a program, as in self-evaluation, are mutually supporting and different facets of the same type program. It was surprising that this correlation was significant at the .01 level only for this group.

The fact that Howard and Tom both disrupted the class routine would be an important factor in their both being rejected by the T:NC. Members of this group often have orderliness as a major goal for their classes.

Those who saw Susan's problems as need for stimulating work understood how to provide this stimulation for Mary. Their prescription for boredom in school was special assignments to make the pupil think. They concentrated on work while those taking courses tended to look for emotional and interpersonal provisions.

T:NC who accepted Mike also understood him and Tom. Those who thought Mike was self-motivated saw his need for direction and Tom's need for more even development. T:NC are the most prone of the groups to give directions and to take responsibility for their students' work.

The negative correlations, the acceptance of Mary, but lack of insight, was reflected in Mary's high scores for attitude and low for insight. Those who saw her as conscientious saw no indication of repressed creativity. T:NC tended to emphasize the conformity and to see no need imposed by creativity.

Insight into Mary was also negatively correlated with attitude toward Joan. Those who saw no sign of repression in Mary saw Joan as musically gifted or a creative thinker. This may have been caused by little understanding of creativity.

Comparison with Anticipated Results

It had been anticipated that advanced level study would enable G and T:C to obtain higher scores than the other two groups. This was found to be true. However, contrary to expectations, the G were superior to the T:C on all points except attitude. Full-time advanced education appeared to be of even more significance in the matter of theory and policy than experience in the classroom.

UG students had been expected to have the lowest scores, with the T:NC having scores which were a little higher in most instances. However, this hypothesis was not supported. The T:NC were slightly superior in insight, but the UG were superior in attitude, planning, and total score. Experience helped the T:NC understand children's behavior a little better, but it seems to have made them less accepting of behavior and less able to provide for it. Probably the pressure of community and administration, plus the isolation of teachers in their classroom has brought about this debilitating effect.

This study found little difference among the four groups of respondents in their scores and in the types of answers which they chose. This would make it appear that the respondents share a large common background of information which influences their answers.

CHAPTER VII

SUMMARY AND CONCLUSIONS

The present research was designed to obtain answers to the following questions:

1. Do the attitudes of teachers and college students toward gifted children vary according to type of child?
2. Does the insight that teachers and college students have into the needs of gifted children differ according to type of child?
3. Does the planning ability of teachers and college students for gifted children vary according to type of child?
4. Are answers to the three above questions influenced by membership in these groups:
    a) Undergraduate students at an education course,
    b) Full-time graduate students in an education course,
    c) Full-time teachers who have taken graduate work in education or psychology during the past three years, and
    d) Full-time teachers who have been enrolled in neither graduate education nor psychology courses during the three-year period?

A questionnaire designed for this study was used in searching for answers to the four questions. Respondents whose answers were used in the study totaled 214, which included 117 students and 97 teachers.

The questionnaire consisted of descriptions of ten gifted intermediate grade pupils of different talents and degrees of the traits of achievement, conformity, creativity, and aggression. There were three questions for each child concerning attitude, insight, and planning, with five choices for each question. Respondents were asked to make one choice for attitude, one for insight, and two choices for planning.

Data were programmed and analyzed at the University of Florida Computing Center. Mean scores were determined for each child, for each category, and for each group of respondents, as were standard deviations, F ratios for two-way analyses of variance, and correlation of all scores.

The answers to all questions posed in the investigation were answered in the affirmative. In answer to the first study's question, attitudes of college students and teachers did vary according to type of the gifted child. Conforming pupils received the greatest acceptance, followed by low creative and achieving pupils. Aggressive pupils were the most often rejected. Nonconformers and underachievers also received little acceptance.

The second question in the study, concerning variance of insight according to type of pupil, was also answered in the affirmative. The underachieving pupil received the most understanding, and the low creative and achieving pupils received the least. This reverses the findings on attitude and planning. Most insight was shown in those pupils who had goals different from those of their teacher. The pupils who supported the teacher in her work were less well understood. Efforts to understand seemed to be directed toward pupils who were farther from the teacher's goals.

In answer to the study's third question, planning ability of college students and teachers was found to vary according to type of gifted child. The achievers ranked highest in appropriate planning and the underachievers the lowest. This reflects the teacher's goals. There was little difference in their planning ability for the other categories.

The fourth question was the only one which was not answered completely in the affirmative. Membership in the four respondent groups, which represented different educational and experiential backgrounds, influenced planning, but did not influence attitude or insight. There was little difference in the types of answers chosen by the four groups. This is evidence of a common body of background knowledge. The full-time students scored higher on ability to plan for gifted pupils than did the teachers. Respondents who were studying on a graduate level seemed to emphasize interpersonal relations and self-concept in their planning, while those with less education more often chose practical and punitive measures. Variance of interaction between the different groups and the different child prototypes was significant in some cases and not in others.

Because there had been little research on types of gifted children, and none on insight or planning ability of teachers of the gifted, the present study was compelled to take a broad over-all approach. Its purpose was to indicate trends and to open areas to future research. Therefore, many points touched upon by this study require refinement and additional research.

Conclusions

In general there appears to be more variation among individuals than among groups in attitude toward gifted children, in understanding of them, and in ability to plan for these pupils. Among groups graduate work in education and psychology appeared to be the major factor in better insight and planning for the gifted. The researcher's recommendation for developing teachers of the gifted is twofold. The first recommendation is a screening of individuals who give evidence of possible effectiveness in teaching gifted children, and the second is to give them graduate courses in the areas in which this study has found them lacking.

The following conclusions were based upon the results of this investigation:

Instrument for selection of teachers of gifted.--The significant differences found in this study indicate that certain persons are able to work more successfully with gifted pupils than others. Considering attitude, insight, and planning ability as prerequisites for successful teaching, educators now have an instrument with which to select teachers who can be successful in working with gifted students. The significant differences at the undergraduate level, show that teachers can be selected at this early stage in their professional development.

Dissemination of research in teacher preparation.--The scores on this questionnaire, which were generally low, indicate a need for better dissemination of present research in the preparation of teachers concerning gifted children.

Items chosen by respondents in this study indicate a need for understanding proper differentiation of instruction for the gifted. The respondent's conception of proper instruction seemed to be a change in quantity or rate in the regular instructional program planned for the average pupil. Teachers of the gifted need to be aware of such basic differences in learning by the gifted as: greater use of abstract thinking, creativity, and self-initiated learning; greater responsibility for one's own learning, the ability to skip steps in a process, less drill, and longer work periods.

Classes, whether for university credit, or an in-service workshop type, should include application of principles to specific cases, especially to the eight major categories included in this study. The significant differences in the acceptance, understanding, and provision for these different types of children show a real need for such practice.

Teachers would be more effective if they could learn to accept gifted children instead of feeling threatened. Selectivity would provide secure teachers of gifted classes, but most gifted children are taught by the regular classroom teacher who needs help in feeling comfortable and confident in working with these children.

Special emphasis should be placed on understanding the achiever, the aggressive and the low creative gifted pupils, and on the emotional needs of all gifted children. The teachers should understand the gifted child's need to develop intellectually, even though he is ahead of his grade level.

Special emphasis should be placed on planning for the underachiever, the withdrawn, and the highly creative pupil. Teachers should be made aware of Guilford's five mental operations (Guilford 1959), and how to plan for their practice and development. Guidelines should be given teachers in helping gifted pupils develop good self-concepts.

Emphasis on individualization of instruction.--The type of situation in which there is pressure to conform to the goal of grade level achievement should be ameliorated for the classroom teacher. Priority should be given to individual needs, interests, and abilities. This can be accomplished in several ways. A major technique would be education of the public. Schools should reflect community values, and it is necessary for the community to understand how individualized programs will achieve their goals more adequately than will grade level instruction. Administrative guidelines comprise another necessary change in addition to the teacher preparation suggested in the second conclusion.

Expanded teacher education.--This study reinforces the prevalent policy of periodic study for certification renewal. Superiority of graduate students majoring in fields other than education, over teachers who had taken no recent course, was a clear demonstration of the need for more required study by teachers.

Much of this can be done locally with in-service workshops, visiting lecturers, and better professional libraries provided by professional groups. State universities can help design such a program.

Suggestions for Future Research

Among the areas which the present study has shown to be in need of future research are the following:

1. There should be a more adequate assessment of insight into the different types of gifted children's needs. The improved content of the questionnaire should be based upon additional research into the problems of these children, including clinical, intellectual and environmental exploration.

2. The instrument should be standardized to determine its reliability and validity.

3. A study should be made which would determine the differences between the eight categories of pupils who are gifted from pupils in the same categories who are average in intellectual ability.

4. Present knowledge of curriculum planning for the gifted appears to be inadequate. The investigator sees a need for further research in this area.

5. A study comparing the stated planning of teachers and their behaviors in similar situations in the classroom would give further information on their planning ability. This might well reveal their understanding of the questionnaire items.

6. The effect of the suggested teacher preparation courses and workshops should be measured by the new instrument.

7. Follow-up studies of gifted pupils will help determine whether there was a significant difference between those pupils who received appropriate planning according to the instrument, and those who did not.

APPENDICES

APPENDIX A

INSTRUMENT

Education of Gifted Questionnaires

SUBJECT'S EDUCATION

Degrees held ______________________ Dates conferred (year)________

Major area of preparation______________________________________

At present: Full-time student__________Part-time student___________

Graduate student__________Undergraduate student_________

Number of graduate courses in education or psychology in past three years

____

SUBJECT'S EXPERIENCE

Number of years of teaching experience____________

Present teaching: Full-time_________Part-time__________

SUBJECT'S INVOLVEMENT WITH GIFTED CHILDREN

Number of gifted children known in past 5 years__________(approximate)

Kinds of experience with gifted children: (circle yes or no)

Yes	No.	1. Taught in regular classroom
Yes	No.	2. Taught in class for gifted
Yes	No.	3. Taught in community organization
Yes	No.	4. Taught music
Yes	No.	5. Member of family
Yes	No.	6. In neighborhood

Yes No. 7. Had in guidance

Yes No. 8. Other____

Please read the following descriptions of ten gifted children (high IQ). Then choose the ONE answer you consider most nearly appropriate for the first two questions following each description. For the third question, choose the TWO approaches which you believe to be most effective in working with this child. In some instances you may feel that counseling by professionals is needed. You may assume that this will be available where needed, and given concurrently with whatever approaches (academic or guidance) that you, as a teacher, choose.

I. Mary takes pride in her work and always finishes it very quickly. She is popular with the other children. When she completes her work, she reads or busies herself with little tasks around the room, such as straightening the books or cleaning the erasers.

1. Mary is . . .	2. Mary's major problem is . . .
____dependable	____no problem
____conforming	____too little work
____smug	____compulsion for neatness
____boring	____repressed creativity
____conscientious	____being too cooperative

3. In working with Mary, the two most effective approaches would be . . .

____give longer assignments to cut down extra time

____use her as teacher aide, tutoring slow students, doing errands, etc.

____excuse from class reading assignments and allow to use time for independent study

____put in charge of housekeeping tasks

____prepare special assignments which give practice in different ways of thinking

II. Howard never does his work. He can't seem to answer the simplest questions. His only talent seems to be in making the class laugh.

He seems to enjoy the role of class clown, and shows off constantly. His teacher was amazed to find that his IQ was very high, as his assignments are nver finished, and what he does is always wrong. His parents are not concerned. The two younger siblings, of average IQ are doing barely passing work.

1. Howard is . . .

____hostile

____a comedian

____lazy

____bright

____boy with a good sense of humor

2. Howard's major problem is. . .

____lack of responsibility

____failure to accept self

____emotional disturbance

____undeveloped intellect

____too much pressure

3. In working with Howard, the two most effective approaches would be. . .

____have Howard placed in a different class

____give remedial help

____be firm and make him toe the line

____give him responsibility on a selected committee

____show appreciation of his humor

III. Joan is a daydreamer. She stares out the window and doesn't hear directions. Her teacher has to check on her constantly and give special help. She dreams instead of doing her arithmetic problems. Her mother insists that she would do well if her teacher did not let her get out of doing her work. The mother kept after Joan to practice the piano until she developed some skill. Now Joan plays very advanced selections, and voluntarily gives most of her spare time to music, often composing her own pieces.

1. Joan is. . .

____retiring

____a procrastinator

____slothful

____musically gifted

____a creative thinker

2. Joan's major problem is. . .

____inability to evoke response and affection

____poor study habits

____laziness

____lack of discipline in class

____short attention span

3. In working with Joan, two effective approaches would be. . .

____assign a talk before the class

____ask how many words she can find to describe the sky

____keep after her to build work habits, with less time for dreaming

____leave her alone, as daydreaming is creative

____give a sociogram as a basis of committee work

IV. Not only was Susan an outstanding actress, but she knew just what to suggest when the stage scenery was ruined the day of the class play. She also showed John why he made so many outs in baseball, and is constantly showing her teacher how to save time in grading papers, in passing out materials, etc. Her work is perfect and is finished quickly. She always has time to try to help others with theirs.

1. Susan is . . .

____overpowering

____annoying

____an unusual child

____creatively brilliant

____a leader

2. Susan's major problem is . . .

____no problem

____hyperactivity

____dislike of others

____boring school work

____overbearing manner

3. In working with Susan, the two most effective approaches would be. . .

____ask her to look for reasons behind behavior

____plan activity unit on democracy and leadership with Susan doing much of the research

____give her extra work so she won't have time to tell others what to do

____help her learn effective study techniques

____correct her, pointing out her faults

V. Mike keeps to himself most of the time. He's engrossed in his books and science experiments. Once he burned a child's hand when she reached under a magnifying glass through which he had focused the sun. Another time he made an explosion in the sink. He explained the chemical reaction and the safety precautions he had taken, although his teacher did not seem to appreciate his efforts. Sometimes Mike forgets to do his class assignments.

1. Mike is . . .

____good at analysis

____cruel

____self-motivated

____a trouble maker

____a studious loner

2. Mike's major problem is . . .

____no problem

____being mischievous

____poor study habits

____undirected ability

____inability to relate to others

3. In working with Mike, two effective approaches would be . . .

____develop effective study habits

____encourage participation in physical activities

____encourage the application of mathematical processes in solving science problems

____explain his need for whole self-development

____restrict the time spent on science

VI. Patti is a serious child. She's very interested in religion, and is concerned with the moral values in the world. Her family are not extreme in their faith. Patti does well in school, but works perfunctorily, seldom showing any interest. Once, however, she showed her teacher a rather mature poem which she had written about religion. Her teacher suggested she try writing poems on other subjects.

1. Patti is . . .

____religious

____self-centered

____very abnormal

2. Patti's major problem is . . .

____insufficient work

____perception of adult problems without sufficient experience

____no problem

____sensitive

____creative

____emotional disturbance

____a misunderstanding teacher

3. In working with Patti two effective approaches would be. . .

____avoid references to religious and moral problems

____make the classroom inviting

____involve her in group work

____give her remedial work in areas where she is poor

____give instruction in theoretical bases of moral behavior

VII. Wayne is the walking encyclopedia. When his teacher suggested that someone look up the capitol of Mali, Wayne gave the answer before anyone else could look it up. When his teacher mispronounced Mozambique, he corrected her. After careful research, his teacher gave the class some information on nuclear particles, which Wayne promptly labeled obsolete. He gave the new findings.

1. Wayne is . . .

____alert

____contended as he is

____a show-off

____interested in many areas

____argumentative

2. Wayne's major problem is . . .

____over concentration on intellectual matters

____inferiority feelings

____rudeness

____too little work

____uneven intellectual development

3. In working with Wayne, two effective approaches would be. . .

____let him continue as is

____give extra projects such as looking up results of past presidential elections

____ask such questions as, "What if the U. S. had been settled from west to east?"

____point out his shortcomings

____help him understand the attitudes of others.

VIII. Judy has the highest marks in class, but neither her teacher nor her classmates seem to like her. She has a sharp sense of humor which she often turns on her teacher. Sometimes she draws clever cartoons which poke fun at the school. Whenever she finishes her work, she draws, usually excellent caricatures of her classmates.

1. Judy is . . .

____a cartoonist

____talented

____mean

____hostile

____skilfull

2. Judy's major problem is. . .

____dislikes others

____too much time spent on art

____boring school work

____no problem

____emotional disturbance

3. In working with Judy, two effective approaches would be . . .

____help her understand class attitudes

____show disapproval of mean remarks

____destroy cartoons, punishing wrong attitudes

____leave her alone

____suggest she use art talent in class project

IX. Paul keeps his teacher hopping. She assigns him twice the work, but he still finishes it in a third the time. It's usually perfect, too. He makes up advanced math problems and works them at his seat until the others have finished. He was studying the encyclopedia to teach himself trigonometry one week.

1. Paul is . . .

____a nuisance

____smug

____no bother as his work is done

____eager

____a genius

2. Paul's major problem is . . .

____too little work

____has not learned to relax as he works

____lack of communication with stimulating minds

____too interested in intellectual pursuits

____too conforming

3. In working with Paul, two effective approaches would be . . .

____teach him logic and probability

____plan life situation unit in mathematics

____hold him up as an example to class

____use him as helper with slow students

____teach him underlying structure of mathematics

X. If the class is in an uproar, you will know that Tom is there. He is full of silly "way-out" ideas, and is very witty in a sarcastic way. He'll work for many hours drawing maps or arguing about national politics, but often ignores assigned work, especially anything that requires writing, in which he is very poor.

1. Tom is . . .

____curious

____creatively brilliant

____undisciplined

____happy-go-lucky

____a trouble maker

2. Tom's major problem is . . .

____insufficient work

____concentrates on wrong work

____uneven development, lacking verbal and writing skills

____lack of interest in intellectual and academic matters

____being mischievous

3. In working with Tom, two effective approaches would be . . .

____keep after him, insisting on discipline

____increase length of work periods and expect good work

____involve him in group work

____set up a system of self-evaluation

____appeal to him to use his ability

APPENDIX B

SCORING BASIS OF ANSWERS TO ATTITUDE QUESTIONS WITH AGREEMENT RATINGS OF SIXTEEN GRADUATE STUDENTS IN A PILOT STUDY

ATTITUDE ITEMS FOR MARY

DEPENDABLE - favorable - 16 agreed
CONFORMING - neutral - 12 agreed
SMUG - unfavorable - 13 agreed
BORING - unfavorable - 13 agreed
CONSCIENTIOUS - favorable - 16 agreed

ATTITUDE ITEMS FOR HOWARD

HOSTILE - unfavorable - 14 agreed
COMEDIAN - neutral - 12 agreed
LAZY - unfavorable - 14 agreed
BRIGHT - favorable - 16 agreed
GOOD SENSE OF HUMOR - favorable - 13 agreed

ATTITUDE ITEMS FOR JOAN

RETIRING - neutral - 12 agreed
PROCRASTINATOR - unfavorable - 14 agreed
SLOTHFUL - unfavorable - 14 agreed
MUSICALLY GIFTED - favorable - 13 agreed
CREATIVE THINKER - favorable - 14 agreed

ATTITUDE ITEMS FOR SUSAN

OVERPOWERING - unfavorable - 14 agreed
ANNOYING - unfavorable - 13 agreed
UNUSUAL CHILD - neutral - 10 agreed
CREATIVELY BRILLIANT - favorable - 15 agreed
LEADER - favorable - 13 agreed

ATTITUDE ITEMS FOR MIKE

GOOD AT ANALYSIS - favorable - 16 agreed
CRUEL - unfavorable - 15 agreed
SELF-MOTIVATED - favorable - 15 agreed
TROUBLE-MAKER - unfavorable - 15 agreed
STUDIOUS LONER - neutral - 11 agreed

ATTITUDE ITEMS FOR PATTI

RELIGIOUS - neutral - 12 agreed
SELF-CENTERED - unfavorable - 13 agreed
VERY ABNORMAL - unfavorable - 12 agreed
SENSITIVE - favorable - 15 agreed
CREATIVE - favorable - 15 agreed

ATTITUDE ITEMS FOR WAYNE

ALERT - favorable - 16 agreed
CONTENTED AS HE IS - neutral - 11 agreed
SHOW-OFF - unfavorable - 13 agreed
INTERESTED IN MANY AREAS - favorable - 16 agreed
ARGUMENTATIVE - unfavorable - 12 agreed

ATTITUDE ITEMS FOR JUDY

CARTOONIST - neutral - 12 agreed
TALENTED - favorable - 15 agreed
MEAN - unfavorable - 13 agreed
HOSTILE - unfavorable - 14 agreed
SKILLFUL - favorable - 16 agreed

ATTITUDE ITEMS FOR PAUL

NUISANCE - unfavorable - 14 agreed
SMUG - unfavorable - 14 agreed
NO BOTHER AS HIS WORK IS DONE - neutral - 11 agreed
EAGER - favorable - 15 agreed
GENIUS - favorable - 14 agreed

ATTITUDE ITEMS FOR TOM

CURIOUS - favorable - 16 agreed
CREATIVELY BRILLIANT - favorable - 15 agreed
UNDISCIPLINED - unfavorable - 12 agreed
HAPPY-GO-LUCKY - neutral - 10 agreed
TROUBLE-MAKER - unfavorable - 15 agreed

SOURCES AND REASONS FOR CHOICES UNDER PROBLEM AND APPROACH

MARY

Insight items.--No problem - WRONG (Barbe 1965, p. 383; Hollingworth 1942, p. 287; Hildreth 1966, p. 6)

Too little work - WRONG (Strang 1960, p. 129)

Compulsion for neatness - WRONG (Sometimes reads, or does whatever teacher provides for her)

Repressed creativity - RIGHT - (Torrance 1962, p. 126)

Being too cooperative - NEUTRAL (Applies, but is not basic problem)

Planning items.--Give longer assignments to cut down extra time - WRONG (Strang 1960, p. 129)

Use as teacher aide, tutoring slow students, doing errands, etc. - NEUTRAL (In moderation may benefit Mary, but may lead to exploitation, ignoring her need for intellectual stimulation and development)

Excuse from class reading assignments and allow to use time for independent studying - RIGHT (Hildreth 1966, p. 214)

Put in charge of housekeeping tasks - WRONG - (Needs intellectual stimulation. See sources for no problem above)

Prepare special assignments which give practice in different ways of thinking - RIGHT (Freehill 1961, p. 217)

HOWARD

Insight items.--Lack of responsibility - WRONG (a deliberate action in feeling responsibility for peer and family acceptance)

Failure to accept self - RIGHT (Freehill 1961, p. 179; Torrance 1962, p. 118, 158)

Emotional disturbance - NEUTRAL (May apply, but ignores reason)

Undeveloped intellect - WRONG (Applies in some ways, but not basic problem)

Too much pressure - WRONG (Little pressure to work is indicated)

Planning items.--Have Howard placed in a different class - RIGHT (Meeks 1961, p. 38)

Give remedial help - NEUTRAL (Needed, but alone would conflict with basic problem)

Be firm and make him toe the line - WRONG (Torrance 1962, p. 180; Meeks 1961, p. 37; Garrison and Force 1965, p. 169)

Give him responsibility on a selected committee - RIGHT (Torrance 1962, p. 157)

Show appreciation of his humor - WRONG (This would reinforce his behavior. He needs to be helped to find acceptable means of gaining attention)

JOAN

Insight items.--Doesn't know how to evoke response and affectation - RIGHT (Strang 1960, p. 195; Meeks 1961, p. 40)

Poor study habits - NEUTRAL (Applies, but not basic problem)

Laziness - WRONG (Always caused by something more basic)

Lack of discipline in class - WRONG (Learns creatively, not by authority, Torrance 1962, p. 129)

Short attention span - WRONG (Can concentrate for long periods on music)

Planning items.--Assign a talk before the class - WRONG (Cutts and Moseley 1957, p. 165)

Ask how many words she can find to describe the sky - RIGHT (Torrance 1962, p. 128)

Keep after her to build work habits, with less time for dreaming - NEUTRAL (Applies, but not basic problem)

Leave her alone, as daydreaming is creative - WRONG (Cutts and Moseley 1957, p. 165)

Give a sociogram as basis of committee work - RIGHT (*Ibid.*)

SUSAN

Insight items.--No problem - WRONG (Barbe 1965, p. 303)

Hyperactivity - WRONG (Cutts and Moseley 1957, p. 180)

Dislike of others - WRONG (Not indicated)

Boring school work - RIGHT (*Ibid.*)

Overbearing manner - NEUTRAL (Applies, but not basic problem)

Planning items.--Ask her to look for reasons behind behavior - RIGHT (Torrance 1962, p. 178; Freehill 1961, p. 178; Brumbaugh 1959, p. 124)

Plan activity unit on democracy and leadership with Susan doing much of the research - RIGHT (Strang 1960, p. 140; Cutts and Moseley 1957, p. 180, 181)

Give her extra work so she won't have time to tell others what to do - WRONG (Strang 1960, p. 164)

Correct her, pointing out her faults - WRONG (Strang 1960, p. 129)

Help her learn effective study techniques - NEUTRAL (Needed by all, not by Susan in particular)

MIKE

Insight items.--No problem - WRONG (Freehill 1961, p. 236)

Being mischievous - WRONG (Not indicated)

Poor study habits - WRONG (Exhibits excellent ones in work challenging to him)

Undirected ability - RIGHT (Cutts and Moseley 1957, p. 170)

Inability to relate to others - NEUTRAL (Gold 1965, p. 361)

Planning items.--Develop effective habits - NEUTRAL (Effective for all, not for Mike in particular)

Encourage participation in physical activities - RIGHT (Unused ability needed for full functioning, Cutts and Moseley 1957, p. 185, 186; Garrison and Force 1965, p. 144)

Encourage application of mathematical processes in solving science problems - RIGHT (Hildreth 1966, p. 262)

Explain his need for whole self-development - WRONG (Torrance 1962, p. 278)

Restrict the time spent on science - WRONG (Barbe 1965, p. 278)

PATTI

Insight items.--Insufficient work - WRONG (Freehill 1961, p. 227)

Perception of adult problems without sufficient experience - RIGHT (Cutts and Moseley 1953, p. 30; Ward 1961, p. 153, 201)

No problem - WRONG (Strang 1960, p. 195)

Emotional disturbance - NEUTRAL (May apply, but not basic problem)

A misunderstanding teacher - WRONG (May contribute to problem, but not cause)

Planning items.--Avoid references to religious and moral problems - WRONG (Ward 1961, p. 153; Hutchinson 1949, p. 66; Cutts and Moseley 1953, p. 30)

Make a classroom inviting - NEUTRAL (General, not for her in particular)

Involve her in group work - RIGHT (Torrance 1962, p. 157; Drews 1961)

Give her remedial work in areas where she is poor - WRONG (Problem is one of developing purpose, not skill)

Give instruction in theoretical bases of moral behavior Ward 1961, p. 201)

WAYNE

Insight items.--Overconcentration on intellectual matters - WRONG

(Too little concentration on higher processes, Torrance 1965, p. 211)

Inferiority feelings - WRONG (May possibly apply, but not definite or basic)

Rudeness - NEUTRAL (Applies at times, but not basic problem)

Uneven intellectual development - RIGHT (Guilford 1959)

Too little work - WRONG (This quantitative approach; needs qualitative)

Planning items.--Let him continue as is - NEUTRAL (Will not help him develop, but will not prevent his developing on his own)

Give extra projects such as looking up results of past presidential elections - WRONG (More cognition and memory practice)

Ask such questions as, "What if the U. S. had been settled from west to east?" - RIGHT (Practice in divergent thinking)

Point out his shortcomings - WRONG (Strang 1960, p. 129; Garrison and Force, 1965, p. 169)

Help him understand the attitudes of others - RIGHT (Torrance 1962, p. 178; Garrison and Force 1965, p. 169; Ward 1961, p. 186)

JUDY

Insight items.--Dislikes others - WRONG (Getzels and Jackson 1962, p. 167, 175)

Spends too much time on art - WRONG (Strang 1960, p. 153)

Boring school work - RIGHT (Torrance 1962, p. 132)

No problem - WRONG (Getzels and Jackson 1962, p. 174)

Emotional disturbance - NEUTRAL (Some hostility and maladjustment, but caused by frustrating her drive to learn creatively, Torrance 1962, p. 4, 132)

Planning items.--Help her understand class attitudes - RIGHT (Torrance 1962, p. 156, 178)

Show disapproval of mean remarks - WRONG (May lead to repression of creativity instead of refinement; Torrance 1962, p. 182, 184)

Destroy cartoons, punishing wrong attitudes - WRONG (*Ibid*.)

Leave her alone - NEUTRAL (Getzels and Jackson 1962, p. 174)

Suggest she use art talent in class project - RIGHT (Torrance 1962, p. 132, 156)

PAUL

Insight items.--Too little work - WRONG (Freehill 1961, p. 227)

Has not learned to relax as he works - WRONG (No indication, and of dubious value as certain tension needed for learning)

Lack of communication with stimulating minds - RIGHT (Barbe 1965, p. 383)

Too interested in intellectual pursuits - WRONG (Strang 1960, p. 153)

Too conforming - NEUTRAL (Not basic problem)

Planning items.--Teach him logic and probability - RIGHT (Gallagher 1964, p. 110,111)

Plan life situation unit in mathematics - WRONG (*Ibid*.)

Hold him up as an example to class - WRONG (Strang 1960, p. 100)

Use him as helper with slow students - NEUTRAL (May have some benefit, but can become exploitation, Hildreth 1966, p. 247, 248)

Teach him underlying structure of mathematics - RIGHT (Gallagher 1964, p. 100; Ward 1961, p. 152)

TOM

Insight items.--Insufficient work - WRONG (Freehill 1961, p. 227, work is plentiful and unfinished)

Concentrates on wrong work - WRONG (Concentrates on work which he is able to do)

Uneven development, lacking verbal and writing skills - RIGHT (Torrance 1962, p. 109, 110, 128)

Lack of interest in intellectual and academic matters - WRONG (Exhibited in self-assignments)

Being mischievous - NEUTRAL (Torrance 1962, p. 132, may apply, but not basic cause of underachievement)

Planning items.--Keep after him, insisting on discipline - WRONG (Strang 1960, p. 173)

Increase length of work periods and expect good work - RIGHT (Torrance 1962, p. 52; Phillips, Weiner and Haring 1960, p. 6)

Involve him in group work - NEUTRAL (Influence of others may or may not help)

Set up a system of self-evaluation - RIGHT (Hildreth 1966, p. 124; Torrance 1962, p. 152)

Appeal to him to use his ability - WRONG (Torrance 1962, p. 173)

APPENDIX C

BEHAVIOR RATIONALE OF PROTOTYPES

The literature has much to say about each child described in the questionnaire. Certain important points refer to all or to many children, although these may be emphasized only in one or two cases by the questionnaire description.

Virgil Ward's contention that "Only through ability grouping can the gifted student engage in stimulating discussion with his intellectual peers" (Barbe 1965, p. 383) is one statement that can be applied to all ten children in the questionnaire. Although they react differently to this lack, by repressing or expressing creativity, by conforming or rebelling, all show a need for such discussion. O'Shea (Barbe 1965, p. 303) makes the same observation. When the gifted child is kept among peers of lower mental age, he is in effect isolated and has no opportunities for a rich close frienship. Mann (1957, p. 200, 201) goes further and speaks of the gifted child's lack of awareness and lack of interest in those of average and low IQ. The questionnaire emphasizes Wayne's need for practice in higher thinking processes, as his development is the most of out of balance, but this is a strong need in all ten children. Torrance (1965, p. 211) reports that effective teachers plan more convergent, divergent, and evaluative thinking activities in their classes than do less effective teachers. The gifted child, whose potentialities are in these areas, suffers from lack of development more the others.

Torrance (Barbe 1965, p. 280) refers to the irritation that many creative children cause their teachers. These children often create problems for themselves by trying consciously to be different in a search for their uniqueness. This applies mainly to Tom, Susan, Wayne, Mike, and Judy, but also has relevance for several of the others. Torrance goes on to note the tendency for highly creative children to gain reputations for wild and silly ideas. This is exemplified in Tom, and can also be seen in Howard. Torrance also mentions that these children show "off the beaten track" ideas which the teacher finds hard to evaluate. This statement can be applied to Judy and Tom.

All highly creative individuals of outstanding achievement attempt tasks that are too difficult for them. If they did not, it is unlikely that they would have conceived their great ideas. Torrance (Barbe 1965, p. 28) believes that we worry too much about the effect of failure and of not being ready to learn. This conclusion can be applied to Mike, Patti, Tom, and Paul as well as to the others in lesser degrees. Torrance also believes that many children might contribute more to society as well as being happier themselves, if they could capitalize on their unique strengths instead of being forced to compensate for their divergence by becoming well rounded. This has a relevance for the majority of the children in the questionnaire. Howard, Susan, Judy, and Tom all represent the gifted child who finds the typical classroom work as inappropriate for his needs as does the mentally retarded child. He becomes bored, attracting attention by clever remarks or bossing other children his own age (Tom and Newell in Barbe, 1965, p. 354).

MARY, the unchallenged conforming achiever, is the type child who was the most predominant in Terman's study (Terman 1926). She is also the child described in most textbooks on the gifted, and was probably the child considered by most subjects on the various studies of attitudes toward the gifted.

Mary has far more ability than she uses, and she restricts most of her energy to adjusting to the average world. Her desire to serve makes little use of her ability. She is unaware of the greater heights to which she can aspire. Torrance mentions "The creative child who abandons his creativity sometimes becomes a very conforming, too-obedient child." Such a child is likely to lose confidence in himself and his judgment as he grows older. (Torrance 1962, p. 126.) Like most writers in the field, Freehill (1961, p. 217) mentions various forms of enrichment which can broaden Mary's horizons and deepen her understanding. He suggests special assignments, individual and group projects, free choice activities, demonstrations to the class, and provision of more appropriate materials. Others (Guilford 1959, Gallagher 1964, Gold 1965, and Torrance 1962 and 1965) emphasize the importance of developing more aspects of the intelligence, and practicing the different forms of convergent, divergent and evaluating thinking. Strang (1960, p. 184) believes that most teachers expect too little of gifted students. Leaving them to get along on their own, not only puts gaps in their education, but reinforces study habits which handicap them later. Even with the best intentions, it is extremely difficult for the regular classroom teacher to make the necessary adjustments in instruction for the gifted (Gallagher et al. 1960). Freehill (1961, p.

144) hypothesizes that most gifted children have outgrown the resources and stimulation of the community by the time they reach the elementary grades and most schools have not discovered the appropriate remedial techniques.

HOWARD, the nonconforming underachiever who has rejected his ability in favor of family or peer acceptance, appears far more frequently than generally realized. He often goes unrecognized and unhelped. Torrance (1962, p. 158) speaks of the fear that many gifted children have, that their talent will bring destruction or injury. Some parents resent and punish the superiority in their children (Gold 1965, p. 357). This is especially likely where other children in the family are less well endowed. Under these circumstances the gifted child rejects his ability and assumes another role. The underachiever is usually more influenced by the desires of others than those of his own (Witty and Lehman in Barbe 1965, p. 271). Howard chooses the role of clown, as one his classmates enjoy more than his role of a "brain."

Howard finds acceptance and attention with family and friends by clowning. He invests his energy and skill in misanswers. He has found his real self to be inappropriate, so he has remade it. Most of the solution to his dilemma lies in the hands of the counselor, working both with Howard and with his parents. The teacher's responsibility is to create a climate in which Howard can feel free to be himself. She needs to help him earn prestige for achievement as he tries to change roles. Howard undoubtedly has some gaps in his learning, fewer than one might think, but remedial help as a major approach would tend to reinforce his old role.

Some pupils exhibit a lack of readiness to work with their present group. Many times a change of classroom evokes desirable behavior changes (Meeks 1961, p, 38). Even with such a change, Howard may not be ready to give up his assumed role, but it will be easier in a new group. The teacher should help the child learn to conform when he wants to learn, but doesn't know how (Barbe 1965, p. 303). In the new classroom, Howard would be likely to respond to responsibility on a committee, which had been selected for appreciation of intellectual values.

JOAN is another gifted child who has decided against achieving. Her mother believes that pressure and restriction comprise the most effective facilitation of learning. Gifted children find that they learn most things with so little effort, that they dislike having to drill and to practice. The mother's pressure kept Joan practicing until she reached a point where she could create music and experience joy in her ability. If she had not been gifted in music, the pressure might have turned her against it. Now that she is learning creatively, her progress has been extraordinary. Her school work involves some pressure, but has resulted in little satisfaction and no hope of learning except by authority. Some children react to a restricted and unchallenging environment with apathetic withdrawal (Gowan 1957, p. 100). Freehill (1961, p. 175) in speaking of the effects of pressure, says that fear induced by tasks above one's competence causes non-adaptive behavior at an extreme rate, either fast or slow. Because Joan has been inattentive, the assignments in arithmetic are above her competence at present. She prefers to evade them. Strang (1960, p. 195) emphasizes the need for sympathy and affection from others in order to respond to any positive behavior. Strang finds that children are inattentive because of an unchallenged intellect and urges the development of a sense of potentiality. Joan is one who learns creatively, not by authority. As her creativity was repressed, learning disabilities developed (Torrance 1962, p. 128).

Torrance claims that it is wrong to show overconcern with a child's dependency as this makes him feel powerless (Torrance, p. 168). He feels it is wrong to keep her so busy that there is no time for daydreaming, because she needs the time to think. He condemns the inducing of identification with the teacher to get good grades, etc., because it may interfere with the child's independence of thought. He urges trying to see how the child feels in order to help her get what she wants in the most effective way. He notes that musical composers frequently assume schizoid-like traits. The source of their inspiration may be found in fantasy and daydreaming, which they use in adaptation to their stresses (Ibid., p. 136).

In helping the shy gifted child, Cutts and Moseley (1957, p. 165) warn against assigning a talk to the class. They suggest involving her with a group of mutually interested children, selected on the basis of a sociogram. Many gifted children are lonely, ineffectual, non-participants in the regular classroom. When they are moved into a group of similar mental age they become happy, productive, friendly, well-liked individuals (Hollingworth 1926, p. 255).

Excessive daydreaming and withdrawal not only prevent mastery of school work, and needed social interaction, but can be a sign of incipient mental illness. Joan needs help in entering the world of people, but her daydreaming should not be completely stopped.

SUSAN is the type child who is responsible for much of the unfavorable attitudes toward the gifted. They are sometimes viewed as conceited and bossy individuals. The creative and very high IQ children often repel others by their divergence and by their "always being right" (Cutts and Moseley 1957, p. 178). Bright people, whose abilities are not challenged, tend to be bossy (Ibid., p. 180). Bossiness is also a sign of insecurity so that the child may need the attention he seizes. Therefore, the teacher should help Susan get it in acceptable ways. Freehill (1961, p. 178) advocates that the gifted learn from their own mistakes. Self-criticism is a characteristic of the gifted and encourages adaptation rather than withdrawal, if the pupil is not too highly involved. Strang blames basic self-centeredness for bossiness, yet feels it is a mistake to point out many of the child's mistakes (Strang 1960, p. 129) or to give lots of work in order to keep the child busy (Ibid., p. 164). Brumbaugh (1959, p. 124) advocates training self-control. She suggests having the child list activities he cannot perform well, which classmates can. Torrance (1962, p. 168) adds that it is wrong for the teacher to hide resentment, but he also warns that the teacher's attitude influences the judgment of the child's peers (1965, p. 20, 21). Dinkmeyer and Dreikurs (1962, p. 118) note that when a teacher's prestige is threatened, she often gives in to her need, and humiliates the child. This can influence the other children's attitudes and foster mental illness.

Two basic approaches are suggested by the above. One is to develop a more realistic understanding of the social situation in which Susan finds herself, together with a realization of the differences between her and the other children. The more basic approach is to combat her self-centeredness and the conditions which gave rise to the unpleasant present, while preserving her self-acceptance and developing her ability. This would involve challenging work which would develop the different aspects of her intellect (Gallagher 1964, p. 210) and would have applications to human relations. It is important that a sense of commitment (Gold 1965, p. 184) be developed during the intermediate grades. An appreciation of good qualities in others should be developed in the gifted.

MIKE is an example of budding scientific creativity. He exhibits commitment, initiative, daring and persistence. He seeks out his purpose and follows it through with amazing maturity. To him school must be a rather irrational place. Little learning results from the tasks assigned in the school curriculum for him. He tries to get school work out of the way so he can get back to the serious business of learning. The intermediate grades are the most crucial ones in the development of scientific ability (Freehill 1961, p. 236). It limits

Mike, that the school does not help him in his learning, but it would severely stunt his intellectual development if his teacher insisted he keep his equipment home, and concentrate on school assignments and social activities with the goal of becoming well rounded (Barbe 1965, p. 277). As Strang states (1960, p. 153), "It is good for a youngster to have the experience of devoting himself unstintingly to a purpose in which he is keenly interested." The teacher should experience joy in the creative abilities of his pupils (Torrance 1962, p. 167).

With no like-minded agemates, it is not surprising that Mike keeps to himself. His classmates are not interested. They do not even see the problem, let alone the solution which excites Mike. In a study of eminent scientists, Roe (Barbe 1965, p. 235) found that typical ones felt lonely and different. Garrison and Force (1965, p. 144) point out the ever-present danger of the gifted narrowing their interests too greatly if they are not encouraged to enter into pursuits other than the academic curriculum. Torrance (1952, p. 157) urges the teacher to help the child tolerate his separateness or help him find someone with whom he can communicate.

PATTI represents the gifted child whose imagination and abstract thinking ability make her tend to worry about moral and intellectual problems for which her narrow experience has ill prepared her (Gowan 1964, p. 192). This is more common at adolescence, but also occurs during preadolescence (Cutts and Moseley 1953, p. 30). She has been allowed to develop without guidance, and has found an interest, a use for her ability. She is conscientious and does her school work, but sees no reason to do more than the minimum that is required.

Patti needs a counselor's help in obtaining a more realistic conception of the world and her part in it. Her teacher can also help Patti to a more normal and realistic life. Strang (1960, p. 195) emphasizes the need for affection and sympathy to reduce fear and worry. If the teacher avoids reference to any of the topics which concern Patti, rapport will be hard to establish, and Patti will receive little help.

The evident ability and interest in creative writing is a healthy sign which should be developed by the teacher. It can open the way to wider interests, social contacts and balanced development. This will help Patti find that perspective she needs. Witty and Lehman (Barbe 1965, p. 267) indicate that many thwarted individuals find an outlet for their precluded desires in poetry. In writing, they find a balm. Patti should be helped to understand that developing her own ability to the highest degree she can, will do far more to contribute to world betterment than being concerned about problems before she is prepared to do anything. She needs the larger view of man's progress and achievements. She needs the appreciation of the good qualities in those around her. There is need for discussion of moral problems to show that they are not new and there are constructive ways of meeting them (Cutts and Moseley 1953, p. 30). Ward (1961, p. 153) urges direct instruction for the gifted in matters of religion and morals. They should understand that, while traditional emphasis is on the supernatural orientation of religion, some systems center on the natural alone. Morals and religion should be placed in some sort of perspective for the gifted child, so he will not reject both, if he rejects one. Ward also believes that instruction in the theoretical bases of ideal moral behavior and of personal and social adjustment is essential to the education of the intellectually gifted (Ibid., p. 201) and that ". . .the gifted individual should be instructed in the processes of social action and in the characteristic behavior of men, as opposed to the ideal behavior in social situations." (Ibid., p. 205.)

Torrance (1962, p. 157) refers to the fear that talent brings destruction or injury. Patti may not volunteer more writing without encouragement and reward. Torrance also reports that homogenious grouping helps decrease the isolation of such gifted children. If no such group is possible, the teacher should seek out other bright children, who are interested in writing, as associates for Patti.

WAYNE is still another example of the uneven development which takes place when gifted children are left to take care of their own education. Wayne, like all gifted children, is less advanced emotionally, socially, and physically than he is intellectually and academically. In addition, he is probably several months younger than most of the children in his class. The average eight-year-old finds great pleasure in telling what others do not know. The problem is that Wayne does it so often. He has concentrated his ability in the areas of cognition and memory, with little social value, especially in his use of them. Introduction to higher levels of thinking, convergent, divergent, and evaluative (Guilford 1959; Torrance 1965, p. 211) would balance his intellectual abilities. By application, it would also help solve his social acceptability problems. More direct study of human relations with involvement in groups, especially with bright students (Barbe 1965, p. 303) would be also advisable.

Both Torrance (1962) and the NEA (1963) stress the need for individualization of instruction for the gifted. It is imperative for high IQ students (Phillips, Weiner, and Haring 1960, p. 113). The unusually high IQ often repel others by their divergence, their "always being right" in the natural use of their abilities (Cutts and Moseley 1957, p. 178; Hollingworth 1942, p. 302).

Gold (1965,p. 361) refers to the flight into intellectual pursuits to escape inadequacy in physical and social situations, while Garrison and Force (1965, p. 169) warn against the danger of the school's fostering mental health difficulties by enforcing a feeling of social inferiority or inadequacy, probably acquired as a result of social rejection. Wayne is one of those gifted children who has not yet learned that people in general are very different from him (Ward 1961, p. 186).

JUDY is a creative achiever with social difficulties. Many people misunderstand the motivation of highly creative persons. The highly creative is unable to stop working because he is unable to stop thinking. Nothing is more enjoyable than working to use his creative powers (Torrance 1962, p. 120). The creative pupil is constantly searching for his own uniqueness, and in so doing, is often responsible for his own woes. Many build up a "credit rating" with their peers through service to them, so that they accept the creative pupil's divergence (Pepinsky 1959).

Some suggestions of ways such students can become less obnoxious without reducing their creativity are:

Become aware of others as persons

Be sincere, purposeful, and diplomatic

Learn to be subtle, not manipulative (Torrance 1962, p. 156)

Judy should be helped to understand her class's attitudes and the reasons behind them (Torrance 1962, p. 178; Barbe 1965, p. 303). The regular use of humor to defend against possible failure may prevent appropriate response later. The teacher should expect and reward graceful leading and following (Getzels and Jackson 1962, p. 174).

Judy's undirected ability has made problems for her. School work has not used her ability and she looks elsewhere for interest and challenge. Her art and wit should be channeled into school and community projects. With better understanding of human relations and recognition and use of her talent, she will be better accepted.

PAUL, like Mary is an unchallenged conforming achiever. However, Paul is probably brighter than Mary, and he has more initiative. In addition, he has revealed ability in a special field, mathematics. The general enrichment and intellectual stimulation which was suggested for Mary applies to Paul, also.

Mathematics is a subject which can be fascinating, but which is often taught so that children learn to dislike it (Gallagher 1964, p. 100). This is especially true of the junior high years. Paul has patiently been doing the thirty column-addition problems, or the thirty long-division problems as homework each night for years. Giving additional work does not teach mathematics, good habits, or good attitudes toward mathematics. The quality of the work assigned is what is of value. Paul is looking forward to junior high where he "can finally learn some mathematics" in school. He has managed to keep his interest on his own thus far. His intermediate grade teachers need to share and feed this interest (or find someone who can). Paul is ready to learn the principles of logic and probability (Ibid., p. 110, 111), to build his own computer, to learn the development of principles of mathematics through the centuries, and to study the underlying structure of mathematics itself. "Theoretical bases should always be given for the facts, opinions, and principles presented to the gifted child" (Ward 1961, p. 152). A unit of work based on a life situation is especially useful for the slow learning student, but there is little need for it with the gifted, who more profitably learn the structure and order of mathematics (Gallagher 1964, p. 100).

Holding up Paul as an example to the class would tend to make him unpopular (Strang 1960, p. 164). Using Paul as a tutor for slower learning children may help him understand the needs of those less well endowed than he, and teach him consideration for others. It may also help him to analyze and organize the basics in a subject so that his understanding is increased. The average teacher, however, tends to continue such a project long after the benefits have been gained. This teaches the child to resent and look down on others, as he realizes that he is being exploited. His own needs in intellectual development are ignored.

TOM is a creative underachiever with behavioral problems. He learns in a creative manner, but the school does not teach that way. He is bright and has learned on his own, but his school grades do not reflect this, particularly as more and longer written assignments are required in the intermediate grades.

Torrance (1962, p. 109; Barbe 1965, p. 277) finds that many creative students lack verbal skills while excelling in originality and flexibility. Poor study and reading methods are another common deficiency. Handwriting is a skill which gifted children find as hard as others, and far more distasteful. Their fast learning rate makes them loath to spend the necessary practice time to master it. Gold (1965, p. 25) suggests a portfolio of the child's sample work. The teacher should help the child set up a system of records, by means of which he can evaluate his own work and see the progress. This is suggested to make use of the gifted child's capacity for self-evaluation.

Many times misbehavior is a reaction to unchallenging work (Torrance 1962, p. 132). A drive characterized by stubbornness, sometimes expressed as reluctance to do as directed, is characteristic of the gifted (Barbe 1965, p. 48). In addition to more challenging work, and opportunities to learn creatively, Tom may need help in finding ways of self-discipline. Commitment to a goal or purpose helps achieve this (Torrance 1962, p. 152). His interest in social studies should provide a starting point. The teacher should not show overconcern with his hostility as this will make him seem powerless (Ibid., p. 168). The child should not be threatened with deprivation. Strang

(1960, p. 164) agrees with Torrance by warning against keeping after such a student, as this reinforces his behavior.

Many gifted students are victims of the short attention span of others and the teacher's attempt to maintain interest by changing activities frequently. Just as the gifted child begins to get interested and involved, he is told to put his work aside and do something else (Torrance 1962, p. 52; Phillips, Weiner, and Haring 1960, p. 6) Tom obviously works best in prolonged periods of intense work. Increasing the length of his work period should increase his involvement. Too often teachers expect far too little of gifted students who then fail to put forth the necessary effort to develop (Strang 1960, p. 184).

APPENDIX D

CATEGORIZATION OF PROTOTYPES

Achievers	Underachievers	Conformers	Nonconformers
Mary	Howard	Mary	Howard
Susan	Joan	Patti	Susan
Wayne	Patti	Paul	Mike
Judy	Tom		Judy
Paul	Mike		Tom

High Creatives	Low Creatives	Aggressives	Withdrawns
Howard	Mary	Howard	Joan
Joan	Wayne	Susan	Patti
Susan	Paul	Wayne	
Mike		Judy	
Patti		Tom	
Judy			
Tom			

CATEGORIES OF QUESTIONNAIRE ITEMS ON INSIGHT INTO TEN PROTOTYPES

Prototype	Items				
	1	2	3	4	5
Mary	NC	1	F	1	F
Howard	F	E	E	1	E
Joan	IR	1	F	P	1
Susan	NC	F	IR	1	F
Mike	NC	F	1	1	IR
Patti	P	E	NC	E	P
Wayne	F	E	F	P	1
Judy	IR	F	1	NC	E
Paul	P	E	1	F	F
Tom	P	F	1	F	F

Symbols:

1	Intellectual need	P	Practicalism
F	Child's fault	NC	Nonconcern
E	Emotional need	IR	Interpersonal relations

CATEGORIES OF QUESTIONNAIRE ITEMS ON PLANNING FOR TEN GIFTED PROTOTYPES

Prototype	Items 1	2	3	4	5
Mary	P	P	ID	P	ID
Howard	P	ID	A	IR	SC
Joan	P	ID	P	NC	IR
Susan	IR	ID	P	ID	A
Mike	ID	Bal	ID	Bal	P
Patti	P	P	IR	ID	ID
Wayne	NC	ID	ID	A	IR
Judy	IR	A	A	NC	ID
Paul	ID	ID	IR	P	ID
Tom	A	ID	IR	SC	SC

Symbols:

ID	Intellectual development	SC	Self-concept
P	Practicalism	NC	Nonconcern
IR	Interpersonal relations	Bal	Balanced development
A	Authoritarian control		

APPENDIX E

TABLE 13

ANALYSIS OF VARIANCE OF ATTITUDE OF THE FOUR GROUPS TOWARD THE TEN GIFTED TYPES

Source	df	Sum of Squares	Mean Square	F Ratio	Significance Level
Four Groups	3	13.85	1.28	1.452	NS
Errors Between	210	185.43	0.88	1.783	.05
Ten Gifted Types	9	369.24	41.03	82.866	.01
Group-Child Interaction	27	31.92	1.18	2.388	.01
Error Within	1890	935.74	0.50		
Total Variation	2139	1526.17			

TABLE 14

ANALYSIS OF VARIANCE OF INSIGHT INTO TEN GIFTED TYPES BY FOUR RESPONDENT GROUPS

Source	df	Sum of Squares	Mean Square	F Ratio	Significance Level
Four Groups	3	2.13	0.71	0.825	NS
Errors Between	210	180.75	0.86	1.427	.01
Ten Gifted Types	9	352.04	39.12	64.829	.01
Group-Child Interaction	27	28.21	1.04	1.732	.05
Error Within	1890	1140.35	0.60		
Total Variation	2139	1703.49			

TABLE 15

CORRECT AND INCORRECT QUESTIONNAIRE ITEM CHOICES BY ALL GROUPS CONCERNING VARIOUS MAJOR PROBLEMS WITH BEHAVIOR OF GIFTED PUPILS (N = 214)

Major Problem	Correct	Incorrect
Child's Fault	0	405
Emotional Need	195	224
No Concern	0	201
Practicalities	0	120
Intellectual Development	528	276
Interpersonal Relations	42	108

TABLE 16

ANALYSIS OF VARIANCE OF PLANNING FOR THE TEN GIFTED CHILD TYPES BY THE FOUR GROUPS

Source	df	Sum of Squares	Mean Square	F Ratio	Confidence Level
Groups	3	30.08	10.03	9.519	.01
Errors Between	210	221.22	1.05	1.370	.01
Child Types	9	564.41	62.71	81.583	.01
Group-Child Interaction	27	44.87	1.66	2.162	.01
Error Within	1890	1452.83	0.77		
Total Variations	2139	2313.41			

TABLE 17

MEAN SUMMARY SCORES OF EACH OF FOUR RESPONDENT GROUPS FOR ATTITUDE, INSIGHT, PLANNING AND TOTAL

Category	UG (N=62)	G (N=55)	T:C (N=35)	T:NC (N=62)	Total Score Possible
Attitude	13.80	13.91	14.54	13.32	20
Insight	9.02	9.82	9.26	9.15	20
Planning	26.95	28.98	26.91	25.81	40
Total	49.77	52.71	50.71	48.27	80

TABLE 18

PER CENTS OF GROUPS MAKING CORRECT AND INCORRECT CHOICE OF INTELLECTUAL DEVELOPMENT AS MAJOR PROBLEM OF GIFTED PUPILS

Respondent Group	N	% Correct	% Incorrect
Undergraduates	62	28	10
Graduates	55	30	8
Teachers Taking Courses	35	28	11
Teachers not Taking Courses	62	29	11

TABLE 19

MEAN RANKS AND MEAN SCORES ON ATTITUDE TOWARD DIFFERENT TYPE GIFTED PUPILS OF FOUR RESPONDENT GROUPS

Category	N	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score
		G(N= 55)		UG(N=62)		T:C(N=35)		(T:NC(N=62)		TOTAL(N=214)	
Achiever	5	4.4	1.53	4.4	1.55	4.2	1.71	3.7	1.42	4.4	1.59
Underachiever	6	6.6	1.24	6.6	1.15	6.8	1.22	7.3	1.05	6.8	1.15
Conformer	3	2.0	1.82	2.0	1.90	3.0	1.78	2.3	1.74	2.3	1.82
Nonconformer	5	7.2	1.60	7.2	1.06	7.0	1.23	6.0	1.10	7.0	1.14
High creative	7	6.6	1.27	6.4	1.19	6.4	1.32	6.4	1.17	6.4	1.23
Low creative	3	3.0	1.67	3.3	1.72	3.3	1.76	3.3	1.72	3.3	1.71
Aggressive	5	7.4	1.14	7.6	1.01	5.6	1.10	7.0	1.10	7.4	1.10
Withdrawn	2	5.0	1.45	4.5	1.50	5.0	1.55	6.0	1.35	5.0	1.45

TABLE 20

MEAN RANKS AND MEAN SCORES ON INSIGHT INTO DIFFERENT TYPE GIFTED PUPILS OF FOUR RESPONDENT GROUPS

Category	N	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score
		G(N=55)		UG(N=62)		T:C(N=35)		T:NC(N=62)		TOTAL (N=214)	
Achiever	5	7.2	0.76	7.3	0.63	7.2	0.60	7.0	0.70	7.2	0.68
Underachiever	5	3.8	1.20	3.7	1.17	3.8	1.25	4.1	1.13	3.8	1.18
Conformer	3	5.3	1.01	6.0	0.75	4.3	1.00	6.0	0.94	5.7	0.92
Nonconformer	5	4.9	1.06	4.2	1.12	5.4	1.00	5.0	0.97	4.8	1.04
High creative	7	4.6	1.09	4.4	1.08	5.0	1.02	4.8	1.02	4.6	1.06
Low creative	3	7.5	0.70	8.2	0.48	7.0	0.60	7.1	0.68	7.7	0.62
Aggressive	5	6.0	0.90	5.8	0.90	6.8	0.77	6.1	0.79	6.2	0.85
Withdrawn	2	4.0	1.16	4.8	0.98	3.5	1.22	4.3	1.13	4.0	1.10

TABLE 21

MEAN RANKS AND MEAN SCORES ON PLANNING FOR DIFFERENT TYPE GIFTED PUPILS BY FOUR RESPONDENT GROUPS

Category	N	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score	Mean Rank	Mean Score
		G(N=55)		UG(N=62)		T:C(N=35)		T:NC(N=62)		TOTAL(N=214)	
Achiever	5	3.8	3.32	3.8	3.01	3.5	3.05	3.6	2.91	3.8	3.01
Underachiever	5	7.2	2.48	7.2	2.38	6.6	2.34	7.4	2.25	7.2	2.38
Conformer	3	5.7	2.92	6.0	2.65	4.8	2.73	4.3	2.64	4.7	2.73
Nonconformer	5	6.0	2.82	5.8	2.65	6.2	2.64	6.2	2.57	6.0	2.67
High creative	7	5.9	2.77	5.7	2.66	6.0	2.62	5.7	2.56	5.7	2.60
Low creative	3	4.7	3.14	5.0	2.78	4.3	2.85	4.7	2.62	5.0	2.67
Aggressive	5	4.8	3.08	4.2	2.90	5.1	2.89	5.2	2.71	5.0	2.77
Withdrawn	2	5.5	2.73	5.5	2.69	5.5	2.59	5.0	2.55	6.0	2.64

TABLE 22

MEAN SUM OF ATTITUDE SCORES OF FOUR RESPONDENT GROUPS* WITH STANDARD DEVIATION

Group	N	M	SD
UG	62	13.50	2.82
G	55	13.91	2.96
T:C	35	14.54	3.21
T:NC	62	13.32	3.00

*NS difference between groups (F ratio = .1451)

TABLE 23

MEAN SUM OF INSIGHT SCORES OF FOUR RESPONDENT GROUPS* WITH STANDARD DEVIATION

Group	N	M	SD
UG	62	9.02	2.65
G	55	9.82	3.20
T:C	35	9.26	2.89
T:NC	62	9.14	2.97

*NS difference between groups (F ratio = .825)

TABLE 24

MEAN SUM OF PLANNING SCORES OF FOUR RESPONDENT GROUPS* WITH STANDARD DEVIATION

Group	N	M	SD
UG	62	26.95	2.90
G	55	28.98	2.91
T:C	35	26.91	4.04
T:NC	62	25.81	3.36

*Differences between groups significant at the .05 level (F ratio = 9.518)

TABLE 25

MEAN SUM OF TOTAL SCORES OF FOUR RESPONDENT GROUPS* WITH STANDARD DEVIATION

Group	N	M	SD
UG	62	49.47	5.38
G	55	52.71	5.78
T:C	35	50.71	7.67
T:NC	62	48.27	6.36

*NS difference between groups (F ratio = 5.384)

TABLE 26

GROUP MEAN SCORES FOR MARY ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	1.97	0.08	2.90
G	55	1.89	0.49	3.53
T:C	35	1.91	0.49	3.14
T:NC	62	1.90	0.40	2.92
TOTAL	214	1.92	0.35	3.11

TABLE 27

GROUP MEAN SCORES FOR HOWARD ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	0.50	0.87	2.27
G	55	1.09	0.82	2.15
T:C	35	0.86	0.77	1.91
T:NC	62	0.53	0.53	2.00
TOTAL	214	0.72	0.74	2.10

TABLE 28

GROUP MEAN SCORES FOR JOAN ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	1.27	0,55	2.58
G	55	1.20	0.91	2.51
T:C	35	1.60	0.86	2.51
T:NC	62	1.18	0.73	2.44
TOTAL	214	1.28	0.74	2.51

TABLE 29

GROUP MEAN SCORES FOR SUSAN ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	1.65	0.53	2.97
G	55	1.67	0.58	3.44
T:C	35	1.74	0.31	3.00
T:NC	62	1.58	0.44	2.84
TOTAL	214	1.65	0.48	3.06

TABLE 30

GROUP MEAN SCORES FOR MIKE ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	1.45	1.61	1.92
G	55	1.53	1.38	2.35
T:C	35	1.57	1.54	2.20
T:NC	62	1.37	1.63	1.92
TOTAL	214	1.47	1.55	2.07

TABLE 31

GROUP MEAN SCORES FOR PATTI ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	1.74	1.40	2.79
G	55	1.69	1.40	2.95
T:C	35	1.49	1.57	2.66
T:NC	62	1.52	1.52	2.66
TOTAL	214	1.62	1.46	2.77

TABLE 32

GROUP MEAN SCORES FOR WAYNE ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	1.19	0.48	3.18
G	55	1.22	0.58	3.62
T:C	35	1.43	0.37	3.00
T:NC	62	1.34	0.73	2.60
TOTAL	214	1.28	0.56	3.09

TABLE 33

GROUP MEAN SCORES FOR JUDY ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	0.95	1.21	3.74
G	55	1.00	1.02	3.73
T:C	35	1.43	0.91	3.69
T:NC	62	1.39	1.03	3.85
TOTAL	214	1.17	1.06	3.76

TABLE 34

GROUP MEAN SCORES FOR PAUL ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	2.00	0.87	2.26
G	55	1.89	1.15	2.27
T:C	35	1.94	0.94	2.40
T:NC	62	1.90	0.90	2.34
TOTAL		1.93	0.96	2.31

TABLE 35

GROUP MEAN SCORES FOR TOM ON ATTITUDE, INSIGHT, AND PLANNING

Group	N	Attitude	Insight	Planning
UG	62	0.77	1.40	2.34
G	55	0.73	1.49	2.45
T:C	35	0.57	1.49	2.40
T:NC	62	0.61	1.24	2.24
TOTAL		0.68	1.39	2.35

TABLE 36

ANALYSIS OF VARIANCE FOR FOUR RESPONDENT GROUPS AND SUMMARY SCORES OF TEN GIFTED CHILD TYPES

Source	df	Sum of Squares	Mean Square	F Ratio	Significance Level
Respondent Groups	3	61.83	20.61	5.385	.01
Errors Between	210	803.80	3.83	1.996	.01
Ten Gifted Types	9	972.84	108.099	56.359	.01
Group-Child Interaction	27	78.09	2.89	1.508	.05
Error Within	1,890	3,624.89	1.92		
Total Variation	2,139	5,541.46			

TABLE 37

TOTAL MEAN SCORES ON PLANNING FOR PROTOTYPES WITH RANK ORDERS OF ATTITUDE, INSIGHT, AND PLANNING

Prototype	Mean Score	Attitude	Rank Order Insight	Planning
Judy	3.76	4	4	1
Mary	3.11	2	10	2
Wayne	3.09	7	8	3
Susan	3.06	3	9	4
Patti	2.77	4	2	5
Joan	2.51	6	6	6
Tom	2.35	10	3	7
Paul	2.31	1	5	8
Howard	2.10	9	7	9
Mike	2.07	5	1	10

TABLE 38

ANALYSIS OF VARIANCE OF TOTAL SCORES FOR EACH TYPE CHILD ACCORDING TO RESPONDENT GROUPS, ERRORS BETWEEN AND GROUP-CHILD INTERACTION

Child	Subject Group	Error Between	Total Score	Group-Child Interaction
Mary	6.362		945.302	4.376
Howard	4.557	1.024	193.509	2.795
Joan	1.376	1.200	242.649	1.402
Susan	4.689	0.854	596.286	1.889
Mike	1.055	1.206	46.444	2.990
Patti	0.787	1.181	201.925	1.516
Wayne	2.425	1.115	478.927	6.570
Judy	1.418	1.165	844.100	2.804
Paul	0.207	1.022	139.784	0.707
Tom	1.317	1.273	213.388	0.355

TABLE 39

ATTITUDE ITEM CHOICES BY FOUR GROUPS AND TOTAL INCLUDING SCORES FOR TEN GIFTED PROTOTYPES

Prototype	Item	UG	G	T:C	T:NC	TOTAL	SCORE
Mary	1	3	12	14	19	48	2
	2	1	5	4	5	15	1
	3	1	0	0	0	1	0
	4	0	0	0	3	3	0
	5	57	37	17	35	146	2
Howard	1	21	14	6	13	54	0
	2	7	6	6	11	30	2
	3	22	8	12	27	69	0
	4	10	17	7	3	37	1
	5	2	10	4	7	23	2
Joan	1	13	17	6	6	42	1
	2	5	15	18	29	67	0
	3	5	4	1	4	14	0
	4	20	9	4	6	39	2
	5	18	9	6	18	51	2
Susan	1	7	4	1	8	20	0
	2	2	1	1	0	4	0
	3	4	8	6	10	28	1
	4	30	25	16	21	92	2
	5	19	17	12	33	71	2

TABLE 39--Continued

Prototype	Item	UG	G	T:C	T:NC	Total	Score
Mike	1	3	2	9	5	19	2
	2	1	0	0	2	3	0
	3	27	27	12	26	92	2
	4	0	0	0	4	4	0
	5	31	25	14	25	95	1
Patti	1	12	13	10	22	57	1
	2	1	5	3	5	14	0
	3	2	1	2	2	7	0
	4	39	34	16	22	111	2
	5	8	2	4	12	26	2
Wayne	1	12	8	9	19	48	2
	2	0	2	0	6	8	1
	3	21	15	5	7	48	0
	4	23	25	17	20	85	2
	5	6	4	5	11	26	0
Judy	1	1	4	3	9	17	1
	2	25	23	19	33	100	2
	3	1	2	0	0	3	0
	4	32	22	9	15	78	0
	5	3	4	4	5	16	2

TABLE 39--Continued

PROTOTYPE	Item	UG	G	T:C	T:NC	Total	Score
Paul	1	0	0	0	0	0	0
	2	0	3	0	1	4	0
	3	0	1	2	6	9	1
	4	23	20	2	18	63	2
	5	39	31	30	37	137	2
Tom	1	1	3	3	1	8	2
	2	20	15	4	9	48	2
	3	35	35	23	33	126	0
	4	5	2	5	15	27	1
	5	0	0	0	3	3	0

TABLE 40

INSIGHT ITEM CHOICES BY FOUR GROUPS AND TOTAL INCLUDING SCORES FOR TEN GIFTED PROTOTYPES

PROTOTYPE	ITEM	UG	G	T:C	T:NC	TOTAL	SCORE
Mary	1	39	18	10	16	83	0
	2	20	22	16	33	91	0
	3	1	0	1	0	2	0
	4	2	12	8	10	32	2
	5	1	3	0	3	7	1
Howard	1	12	18	9	22	61	0
	2	15	17	9	10	51	2
	3	11	9	6	11	37	1
	4	24	12	11	19	66	0
	5	0	0	0	0	0	0
Joan	1	13	17	6	6	42	2
	2	5	15	18	29	67	1
	3	5	4	1	4	14	0
	4	20	9	4	6	39	0
	5	18	9	6	18	51	0
Susan	1	22	19	14	22	77	0
	2	11	12	13	19	55	0
	3	0	0	0	0	0	0
	4	2	8	3	5	18	2
	5	28	17	5	15	65	1

TABLE 40--Continued

PROTOTYPE	ITEM	UG	G	T:C	T:NC	TOTAL	SCORE
Mike	1	3	4	2	0	9	0
	2	0	0	0	4	4	0
	3	0	0	0	1	1	0
	4	41	25	21	40	127	2
	5	18	26	12	17	73	1
Patti	1	3	2	0	1	6	0
	2	42	35	26	41	144	2
	3	8	9	2	3	22	0
	4	3	5	2	12	22	1
	5	6	4	4	5	19	0
Wayne	1	24	17	23	25	89	0
	2	15	15	4	5	39	0
	3	12	15	2	11	40	1
	4	2	1	1	4	8	0
	5	9	8	5	17	39	2
Judy	1	6	13	7	9	35	0
	2	2	0	2	5	9	0
	3	24	15	8	23	70	2
	4	2	1	2	5	10	0
	5	27	25	16	20	88	1

TABLE 40--Continued

Prototype	ITEM	UG	G	T:C	T:NC	TOTAL	SCORE
Paul	1	15	10	5	9	39	0
	2	9	8	6	15	38	0
	3	27	32	16	27	100	2
	4	11	4	7	8	30	0
	5	0	3	1	2	6	1
Tom	1	2	0	2	5	9	0
	2	10	6	2	8	26	0
	3	41	39	25	37	142	2
	4	3	8	4	10	25	0
	5	6	2	2	2	12	1

TABLE 41

PLANNING ITEM CHOICES BY FOUR GROUPS AND TOTAL INCLUDING SCORES FOR TEN GIFTED PROTOTYPES

Prototypes	Item	UG	G	T:C	T:NC	TOTAL	SCORE
Mary	1	14	0	9	17	40	0
	2	35	23	13	29	100	1
	3	15	41	16	19	91	2
	4	5	2	0	3	10	0
	5	55	41	31	56	183	2
Howard	1	4	4	1	2	11	2
	2	31	19	15	24	89	1
	3	21	11	16	33	81	0
	4	51	46	24	46	167	2
	5	16	29	14	16	75	0
Joan	1	17	19	11	18	65	0
	2	44	33	17	14	108	2
	3	47	25	23	55	150	1
	4	3	10	3	2	18	0
	5	12	23	16	32	83	2
Susan	1	34	41	15	21	111	2
	2	51	50	32	52	185	2
	3	22	10	11	17	60	0
	4	7	7	11	26	51	1
	5	7	2	1	7	17	0

TABLE 41--Continued

Prototypes	Item	UG	G	T:C	T:NC	Total	Score
Mike	1	27	13	12	23	75	1
	2	22	31	18	29	100	2
	3	24	27	13	20	84	2
	4	46	39	25	41	151	0
	5	5	0	1	11	17	0
Patti	1	5	3	7	10	25	0
	2	39	36	12	31	118	1
	3	52	48	32	54	186	2
	4	12	6	8	13	39	0
	5	16	16	11	15	58	2
Wayne	1	8	6	5	10	29	1
	2	19	7	10	25	61	0
	3	47	44	22	26	139	2
	4	3	2	5	14	24	0
	5	46	50	28	48	172	2
Judy	1	54	50	30	57	191	2
	2	6	6	6	4	22	0
	3	0	0	0	0	0	0
	4	4	3	1	3	11	1
	5	60	51	33	60	204	2

TABLE 41--Continued

Prototypes	Item	UG	G	T:C	T:NC	Total	Score
Paul	1	21	26	19	27	93	2
	2	31	32	20	36	119	0
	3	1	0	0	0	1	0
	4	43	31	17	32	123	1
	5	28	21	14	29	92	2
Tom	1	8	9	10	11	38	0
	2	19	3	4	7	33	2
	3	34	29	13	36	112	1
	4	36	49	30	43	158	2
	5	26	20	10	23	79	0

TABLE 42

SIGNIFICANT CORRELATIONS OF SCORES BY UNDERGRADUATE STUDENTS (N=62)

Correlate 1	Correlate 2	r	Significance Level
Planning for Joan	Insight into Howard	+.3406	.01
Attitude toward Patti	Insight into Howard	-.3252	.01
Attitude toward Susan	Planning for Patti	+.3440	.01
Planning for Susan	Insight into Wayne	+.3473	.01
Planning for Judy	Insight into Wayne	+.3446	.01

TABLE 43

SIGNIFICANT CORRELATIONS OF SCORES BY GRADUATE STUDENTS (N=55)

Correlate 1	Correlate 2	r	Significance Level
Planning for Paul	Insight into Mary	+.3602	.01
Planning for Howard	Insight into Judy	-.3993	.01
Planning for Howard	Planning for Tom	+.5129	.01
Attitude toward Joan	Insight into Wayne	+.3521	.01
Attitude toward Joan	Insight into Susan	+.3770	.01
Attitude toward Wayne	Insight into Tom	+.3862	.01

TABLE 44

SIGNIFICANT CORRELATIONS OF SCORES BY TEACHERS TAKING COURSES (N=35)

Correlate 1	Correlate 2	r	Significance Level
Insight into Joan	Insight into Mike	-.4373	.01
Planning for Susan	Insight into Mike	-.4775	.01
Planning for Mary	Insight into Tom	+.5509	.01
Planning for Joan	Attitude toward Patti	+.4285	.01
Planning for Joan	Attitude toward Wayne	+.4339	.01
Attitude toward Joan	Attitude toward Susan	+.5689	.01
Attitude toward Wayne	Insight into Joan	+.5166	.01
Attitude toward Wayne	Insight into Tom	+.5910	.01
Attitude toward Susan	Insight into Tom	+.5148	.01
Insight into Judy	Insight into Patti	+.4947	.01

TABLE 45

CORRELATIONS OF TOTAL MEAN SCORES FOR PROTOTYPES AND TOTAL MEAN CATEGORY SCORES FOR UNDERGRADUATES (N=62)

Correlate 1	Correlate 2	r	Significance Level
Attitude	Judy's Total Score	+.4435	.01
Attitude	Tom's Total Score	+.4627	.01
Insight	Joan's Total Score	+.4324	.01
Planning	Mary's Total Score	+.3627	.01
Planning	Joan's Total Score	+.3558	.01
Planning	Susan's Total Score	+.3867	.01
Total	Attitude	+.7134	.01
Total	Insight	+.5610	.01
Total	Planning	+.6506	.01

TABLE 46

SIGNIFICANT CORRELATIONS OF SCORES BY TEACHERS TAKING NO COURSES (N=62)

Correlate 1	Correlate 2	r	Significance Level
Planning for Mary	Insight into Susan	+.3477	.01
Planning for Tom	Insight into Judy	+.3630	.01
Insight into Tom	Insight into Judy	+.3635	.01
Attitude toward Mary	Insight into Mary	-.3529	.01
Attitude toward Joan	Insight into Mary	-.3488	.01
Attitude toward Tom	Attitude toward Howard	+.3265	.01
Attitude toward Mike	Insight into Mike	+.3407	.01
Attitude toward Mike	Insight into Tom	+.3248	.01

TABLE 47

CORRELATIONS OF TOTAL MEAN SCORES FOR PROTOTYPES WITH TOTAL MEAN CATEGORY SCORES FOR GRADUATE STUDENTS (N=55)

Correlate 1	Correlate 2	r	Significance Level
Attitude	Wayne's Total Score	+.4555	.01
Attitude	Judy's Total Score	+.3928	.01
Attitude	Tom's Total Score	+.4306	.01
Insight	Mary's Total Score	+.4141	.01
Insight	Howard's Total Score	+.4301	.01
Insight	Joan's Total Score	+.4453	.01
Insight	Tom's Total Score	+.4307	.01
Planning	Mary's Total Score	+.4608	.01
Planning	Paul's Total Score	+.4081	.01
Total	Attitude	+.5617	.01
Total	Insight	+.7713	.01
Total	Planning	+.5659	.01

TABLE 48

CORRELATIONS OF TOTAL MEAN SCORES FOR PROTOTYPES AND TOTAL MEAN CATEGORY SCORES OF TEACHERS TAKING COURSES (N=35)

Correlate 1	Correlate 2	r	Significance Level
Attitude	Joan's Total Score	+.4608	.01
Attitude	Susan's Total Score	+.4991	.01
Attitude	Wayne's Total Score	+.4837	.01
Attitude	Judy's Total Score	+.6382	.01
Attitude	Tom's Total Score	+.6709	.01
Insight	Mary's Total Score	+.6234	.01
Insight	Tom's Total Score	+.4839	.01
Planning	Howard's Total Score	+.4561	.01
Planning	Joan's Total Score	+.4878	.01
Planning	Susan's Total Score	+.6035	.01
Planning	Patti's Total Score	+.5510	.01
Planning	Wayne's Total Score	+.5204	.01
Planning	Paul's Total Score	+.4457	.01
Planning	Tom's Total Score	+.4615	.01
Total	Attitude	+.7335	.01
Total	Insight	+.7003	.01
Total	Planning	+.8145	.01

TABLE 49

CORRELATIONS OF TOTAL MEAN SCORES FOR PROTOTYPES AND TOTAL MEAN CATEGORY SCORES OF TEACHERS NOT TAKING COURSES (N=62)

Correlate 1	Correlate 2	r	Significance Level
Attitude	Susan's Total Score	+.3534	.01
Attitude	Judy's Total Score	+.4886	.01
Insight	Joan's Total Score	+.3251	.01
Insight	Judy's Total Score	+.5302	.01
Insight	Tom's Total Score	+.5494	.01
Planning	Mary's Total Score	+.4356	.01
Planning	Susan's Total Score	+.4649	.01
Planning	Patti's Total Score	+.4793	.01
Planning	Paul's Total Score	+.3836	.01
Planning	Tom's Total Score	+.4382	.01
Total	Attitude	+.5477	.01
Total	Insight	+.7658	.01
Total	Planning	+.7266	.01

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Madeline Hulse Beck was born March 1, 1923, at New York, New York. Her undergraduate work was done at Cornell University, Ithaca, New York. She received her Bachelor of Arts with major in Psychology from Cornell University in 1945 and a Master of Science with major in Education from the State University of New York at New Paltz in 1959.

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This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Education and to the Graduate Council, and was approved as partial fulfillment of the requirements for the degree of Doctor of Education.

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